National Park Service
U.S. Department of the Interior

State of the Park Report

Horseshoe Bend National Military Park

Alabama

2014

National Park Service. 2014. State of the Park Report for Horseshoe Bend National Military Park. State of the Park Series No. 17. National Park Service, Washington, D.C.

On the cover: View of the Battlefield at Horseshoe Bend from the Overlook area in the Park; white posts can be seen in the distance representing the barricade.

Disclaimer. This State of the Park report summarizes the current condition of park resources, visitor experience, and park infrastructure as assessed by a combination of available factual information and the expert opinion and professional judgment of park staff and subject matter experts. The internet version of this report provides the associated workshop summary report and additional details and sources of information about the findings summarized in the report, including references, accounts on the origin and quality of the data, and the methods and analytic approaches used in data collection and assessments of condition. This report provides evaluations of status and trends based on interpretation by NPS scientists and managers of both quantitative and non-quantitative assessments and observations. Future condition ratings may differ from findings in this report as new data and knowledge become available. The park superintendent approved the publication of this report.

Executive Summary

The mission of the National Park Service is to preserve unimpaired the natural and cultural resources and values of national parks for the enjoyment, education, and inspiration of this and future generations. NPS Management Policies (2006) state that "The Service will also strive to ensure that park resources and values are passed on to future generations in a condition that is as good as, or better than, the conditions that exist today." As part of the stewardship of national parks for the American people, the NPS has begun to develop State of the Park reports to assess the overall status and trends of each park's resources. The NPS will use this information to improve park priority setting and to synthesize and communicate complex park condition information to the public in a clear and simple way.

The purpose of this State of the Park report is to:

- Provide to visitors and the American public a snapshot of the status and trend in the condition of a park's priority resources and values;
- Summarize and communicate complex scientific, scholarly, and park operations factual information and expert opinion using non-technical language and a visual format;
- Highlight park stewardship activities and accomplishments to maintain or improve the State of the Park;
- Identify key issues and challenges facing the park to help inform park management planning.

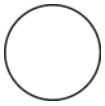
The purpose of Horseshoe Bend National Military Park (HOBE) is to preserve and to protect the site of the last major engagement of the Creek War (1813–1814). The park interprets the events of the battle in the larger context of the War of 1812, as well as their impacts on the Creek people and the development of the United States.

Significance statements express why the park unit's resources and values are important enough to warrant national park unit designation. HOBE is significant because:

- It is the only unit of the national park system east of the Mississippi River protecting the site of a battle between U.S. forces and an American Indian tribe. The battle resulted in the largest loss of life for American Indians in any single battle in U.S. history.
- The decisive battle cost the Creek Nation approximately 23 million acres of their homeland, which eventually led to the creation of the state of Alabama and contributed to the expansion of the young United States.
- The events at Horseshoe Bend established the national prominence of Andrew Jackson as a military leader and ultimately president of the United States.
- The village sites of Tohopeka and Newyaucau, together with the battlefield, present an exceptional venue for interpreting the history and stories of the Creek people in the 18th and early 19th centuries.
- The victory at Horseshoe Bend and other American victories gave leverage to the U.S. negotiators during the 1814 Treaty of Ghent, leading to a status quo antebellum agreement (return to prewar conditions).

The summary table, below, and the supporting information that follows, provide an overall assessment of the condition of priority resources and values at HOBE based on scientific and scholarly studies and expert opinion. The internet version of this report, available at http://www.nps.gov/stateoftheparks/hobe/, provides additional detail and sources of information about the resources summarized in this report, including references, accounts on the origin and quality of the data, and the methods and analytical approaches used in the assessments. Reference conditions that represent "healthy" ecosystem parameters, and regulatory standards (such as those related to air or water quality) provide the rationale to describe current resource status. In coming years, rapidly evolving information regarding climate change and associated effects will inform our goals for managing park resources, and may alter how we measure the trend in condition of park resources. Thus, reference conditions, regulatory standards, and/or our judgment about resource status or trend may evolve as the rate of climate change accelerates and we respond to novel conditions. In this context, the status and trends documented here provide a useful point-in-time baseline to inform our understanding of emerging change, as well as a synthesis to share as we build broader climate change response strategies with partners.

The Status and Trend symbols used in the summary table below and throughout this report are summarized in the following key. The background color represents the current condition status, the direction of the arrow summarizes the trend in condition, and the thickness of the outside line represents the degree of confidence in the assessment. In some cases, the arrow is omitted because data are not sufficient for calculating a trend (e.g., data from a one-time inventory or insufficient sample size).

Condition Status		Trend in Condition		Confidence in Assessment	
	Warrants Significant Concern		Condition is Improving		High
	Warrants Moderate Concern		Condition is Unchanging		Medium
	Resource is in Good Condition		Condition is Deteriorating		Low

State of the Park Summary Table

Priority Resource or Value	Condition Status/Trend	Rationale
Natural Resources		web ▸
Air Quality		For 2008–2012: ozone condition warrants moderate concern; sulfur and nitrogen wet deposition conditions warrant significant concern; and visibility condition warrants significant concern. Condition levels are based on NPS Air Resource Division benchmarks.
Geology and Soils		Erosion along the river channel is an issue; however, no evidence of erosion exists on interior feeder streams. The high suspended sediment load in the Tallapoosa River coalesces into alluvial fans and other areas of deposition; however, the overall rate of the rate of erosion in the river channel is greater than that of deposition.
Water Quantity and Quality		The Tallapoosa River is regulated by a hydropower facility approximately 25 miles upstream from the park; therefore surface water quantity is based on discharge decisions. Discharge is often flashy and highly variable, leading to river-channel erosion. Water quality is generally good, although turbidity exceeds EPA standards in approximately half of the samples collected.
Flora and Fauna		The park has high plant, bird, and amphibian species diversity, and a wide range of vegetation communities. Non-native invasive species, while present, are managed and not considered a major issue. An amphibian fungal pathogen is present at the park, although no direct evidence exists that it is negatively impacting amphibian populations.
Adjacent Land Cover and Use		Adjacent lands of the park remain rural and appear to have little negative influence on park resources. Population growth in the area is low and expected to maintain a low rate.
Dark Night Sky		The modeled Anthropogenic Light Ratio (ALR), a measure of light pollution calculated as the ratio of Average Anthropogenic Sky Glow to Average Natural Sky Luminance, was 1.23 which is considered moderate. Trend is neutral based on the moderate to low growth rate of nearby cities.

Priority Resource or Value	Condition Status/Trend	Rationale
Soundscapes		The mean L_{50} Impact (L_{50} dBA), a measure of noise contributed to the existing acoustical environment by anthropogenic sources, is 2.5 dBA. Nationwide increases in ground-based and aircraft traffic indicate a downward trend in the quality of acoustic resources.
Cultural Resources		web ▸
Archeological Resources		HOBE contains intact and nationally significant archeological resources that reflect broad themes in American history. While the majority of the sites are related to 20th-century settlements, four sites directly relate to the battle and American Indian settlement. The sites are in good condition and are relatively free of impacts but there are long term concerns related to global climate change, invasive animals, and limited condition assessments due to staffing cuts. Recent investigations have focused on the core battlefield area and include metal detecting and remote-sensing surveys. The remainder of the park needs a Section 110 archeological survey for the non-battlefield portions of the park. All sites need an updated condition assessment.
Cultural Anthropology		To date there has been no documented ethnographic overview and assessment conducted at the site. Although there has been significant focus on the site in terms of natural resources and tangible/material resources such as cultural landscapes and archaeological findings, for example, site significance can be increased by learning about and interpreting the lives of people and communities with ties to the park historically and presently. PMIS #199911A, for an Ethnographic Overview and Assessment, is funded for FY 2016.
Cultural Landscapes		Documentation of the cultural landscape is good with a certified CLI (2012) and a recent CLR (2013). The Cultural Landscape Report provides treatment recommendations, a physical site history, and evaluates contributing characteristics and features, in addition detailing existing conditions. The National Register nomination should be amended to expand historic contexts, refine the period of significance and better describe the battlefield landscape.
Historic Structures		The park's historic structures are secondary to the park main resources. The mission of the park is to commemorate the Battle of Horseshoe Bend and the people involved in the battle. The park historic structures include the Congressional Monument and Jackson trace marker, Daughter of 1812 Monument, Miller's Bridge Piers and Montgomery, Lemuel Pernell, Grave Marker. These resources are fundamental in the park and they are listed in the LCS and the National Register Nomination. There is no other documentation such as HABS/ HAER, HSR or condition assessment for these historic structures and monuments.
History		The park needs an Administrative History and a Historic Resource Study (HRS funded for FY 2014), both required baseline documents. Also, the existing 1976 National Register nomination for the park is out-of-date and needs to be revised to reflect current scholarship and to incorporate contemporary historical analysis. NOTE: A Historic Resource Study and updated National Register Nomination are being conducted this year.
Museum Collections		The park museum and archival collections are in good condition overall. An updated archival and records management survey is needed, as well as an update to the 2006 SER Storage Plan to bring the report up to date with current conditions at the park and throughout the region. The small backlog of archeological artifacts is being addressed at SEAC.

Priority Resource or Value	Condition Status/Trend	Rationale
Visitor Experience		web
Number of Visitors		The total of 55,965 visitors to the park in 2013 is 23% lower than the 10-year average of 69,085 visitors for 2003–2012.
Visitor Satisfaction		Visitor satisfaction in FY12 was 97.0%, which is similar to the average for the previous five years (98.5%). Source: 2012 Visitor Survey Card Data Report
Interpretive and Education Programs – Talks, Tours, and Special Events		The number of talks has decreased over the past 5 years due to decreased off site participation in events. Guided tours have increased over the past 10 years by about 30%. The size of special events has decreased, with the exception of the bicentennial due to lack of staff and funding.
Interpretive Media – Brochures, Exhibits, Signs, and Website		Installation of new wayside exhibits in 2008 provides visitors with an improved education experience. The park's website and brochure are consistently maintained. The park movie was updated in 2004. The museum exhibits are outdated and need to be replaced. Facility space and layout restricts the park's ability to display artifacts.
Accessibility		The park's visitor center, restrooms, and tour stops meet ADA accessibility requirements. The park's video has closed captioning for visitors with disabilities. There is also a braille brochure available upon request.
Safety		The safety of visitors and staff is a park priority. The park works to quickly identify and mitigate potential hazards and the number of accidents is very low. The park staff have been 100% trained on operational leadership and first aid training is also offered. Job Hazard Analysis is conducted before work commences throughout the park. Regular safety messages are given and distributed to staff members.
Partnerships		The park's friends group was chartered in 2011 and has provided much needed physical and financial support for events and day to day operations. The park also partners with state parks for programs and events related to the Creek War and the Battle of Horseshoe Bend. Auburn University has partnered with the park on events such as annual symposiums. The local county extension office partners with the park each summer for education programs.
Park Infrastructure		web
Overall Facility Condition Index		The overall Facility Condition Index for 97 assets for FY13 is 0.081, which is Good based on industry and NPS standards.

Summary of Stewardship Activities and Key Accomplishments to Maintain or Improve Priority Resource Condition:

The list below provides examples of stewardship activities and accomplishments by park staff and partners to maintain or improve the condition of priority park resources and values for this and future generations:

Natural Resources

- Active prescribed fire program dedicated to restoring a historically prevalent balanced ecosystem.
- Ongoing longleaf pine restoration project working with Dr. Sharon Hermann at Auburn University.
- Draft Integrated Pest Management Plan is complete and under review at the Southeast Regional office.
- Completion of basic natural resource inventories and initiation of long-term monitoring of a subset of the park's natural resources by the Southeast Coast Inventory and Monitoring Network (SECN).
- Completion of a draft Natural Resource Condition Assessment to evaluate and summarize existing natural resource data for the park.

Cultural Resources

- Completion of Cultural Landscape Report and certification of Cultural Resource Inventory.
- Updating of the Scope of Collection Statement for Museum Collection.
- Completion of a remote sensing survey of the core battlefield area, including confirmatory information regarding the location of the Red Stick defensive works (the barricade).
- Museum collections are 93.7% catalogued. Onsite museum collections have been 100% inventoried and photographed.
- Historic Resource Study and accompanying National Register of Historic Places nomination update have been funded for FY 2014. This will be the first update since the 1976 original nomination was signed by the Keeper of the Register. The update will include newly discovered archeological resources and cultural landscapes.
- Park's first ever Ethnographic Overview and Assessment was formulated for FY 2016.

Visitor Experience

- The park commemorated the Bicentennial of the battle through 5 special events in March 2014.
- The park's friends group Friends of Horseshoe Bend was created in 2011.
- The park's relationship with its 12 affiliated tribes cultivated over the past few years has resulted in a positive input into park programs
- The creation of the Life Jacket Awareness/Loaner program beginning in 2011 has increased recreational safety along the river.
- 8 new wayside exhibits have been developed and put in place along the tour road.
- The park slide program was replaced in 2004 with a park film.
- The Junior Ranger program has expanded to include event specific activities and the regular program now meets curriculum based education standards in the state of Alabama.

Park Infrastructure

- Resurfaced visitor used park roads, pull offs and parking lots (FY 2006)
- Replaced roof on the Visitor Center /Administration and Comfort Station buildings(FY 2009)
- Remaining barriers to accessibility are being mitigated by installation of handicapped ramp at theater exit, replacement of manual doors to Visitor Center with powered doors, and upgrading of existing handicapped ramp in FY 2014.
- Lighting in Visitor Center is being replaced with more energy-efficient LED lighting in FY 2014.
- Surfaces of existing fire roads are being rehabilitated in FY 2014.

Key Issues and Challenges for Consideration in Management Planning

Horseshoe Bend National Military Park has accomplished much over the past several years, but there are significant issues facing the park—issues that are also opportunities to explore new paradigms in all aspects of park operations. The recent Bicentennial commemoration presented many challenges in planning such a large event with such a small staff. But, the benefits gained by involving tribal officials early in the planning have paid major dividends since the commemoration. The park fostered a very strong relationship with the Muscogee (Creek) Nation of Oklahoma. This relationship has resulted in contacts for the exploration of partnerships with the tribes in educational development and other areas. The challenge associated with this success is maintaining and fostering the relationship, as well as expanding it to a more active relationship with the eleven other affiliated tribes.

Another area of great concern to the park is that of development in the local area. Tallapoosa County population statistics have remained stagnant, but the numbers for neighboring Lee County have not. Lee County contains the Auburn-Opelika metropolitan area, which is the 11th fastest growing metropolitan area in the country. An increase in the urbanization of Lee County may bring with it increased highway traffic, as well as other associated issues such as increased air, water, land, light, and noise pollution. The increased development associated with the economic advantage of selling farmland for purposes other than farming may put the bucolic landscape surrounding the park in jeopardy.

Over the past several years, visitation to the park has decreased. Goals for relevance and education have consistently exceeded targets, but this decrease, coupled with budget challenges, may have a serious impact on fostering relevance. With the increased attention of the Bicentennial and a concurrent interest in programs, the park has a window of opportunity to increase our ability to promote educational outreach and engage new audiences.

One of the greatest challenges to stewardship of the park is a lack of cultural resources baseline documentation to facilitate future planning. The park, with the support of regional programs is working diligently to increase this knowledge base to complement the excellent work that has been done in the arena of natural resources in partnership with the Southeast Coastal Inventorying and Monitoring network.

Operationally, several of the park's facilities are in need of upgrading. The maintenance facility is a patchwork of structures that require replacement to repair for a safer and healthier environment. The curatorial storage room is also in need of upgrading. The park is working with Southeast Regional staff to get funding to address these issues.
HOBE has challenges, but with a creative and approach to management of these issues and opportunities, as well as collaboration with interested and committed partners, the park will continue to build on its solid foundation. The foundation will provide future managers, staff, and partners with additional tools to preserve and interpret these powerful stories and resources.

Chapter 1. Introduction

The purpose of this State of the Park report for Horseshoe Bend National Military Park (HOBE) is to assess the overall condition of the park's priority resources and values, to communicate complex park condition information to visitors and the American public in a clear and simple way, and to inform visitors and other stakeholders about stewardship actions being taken by park staff to maintain or improve the condition of priority park resources for future generations. The State of the Park report uses a standardized approach to focus attention on the priority resources and values of the park based on the park's purpose and significance, as described in the park's Foundation Document or General Management Plan. The report:

- Provides to visitors and the American public a snapshot of the status and trend in the condition of a park's priority resources and values.
- Summarizes and communicates complex scientific, scholarly, and park operations factual information and expert opinion using non-technical language and a visual format.
- Highlights park stewardship activities and accomplishments to maintain or improve the state of the park.
- Identifies key issues and challenges facing the park to inform park management planning.

The process of identifying priority park resources by park staff and partners, tracking their condition, organizing and synthesizing data and information, and communicating the results will be closely coordinated with the park planning process, including natural and cultural resource condition assessments and Resource Stewardship Strategy development. The term "priority resources" is used to identify the fundamental and other important resources and values for the park, based on a park's purpose and significance within the National Park System, as documented in the park's foundation document and other planning documents. This report summarizes and communicates the overall condition of priority park resources and values based on the available scientific and scholarly information and expert opinion, irrespective of the ability of the park superintendent or the National Park Service to influence it.

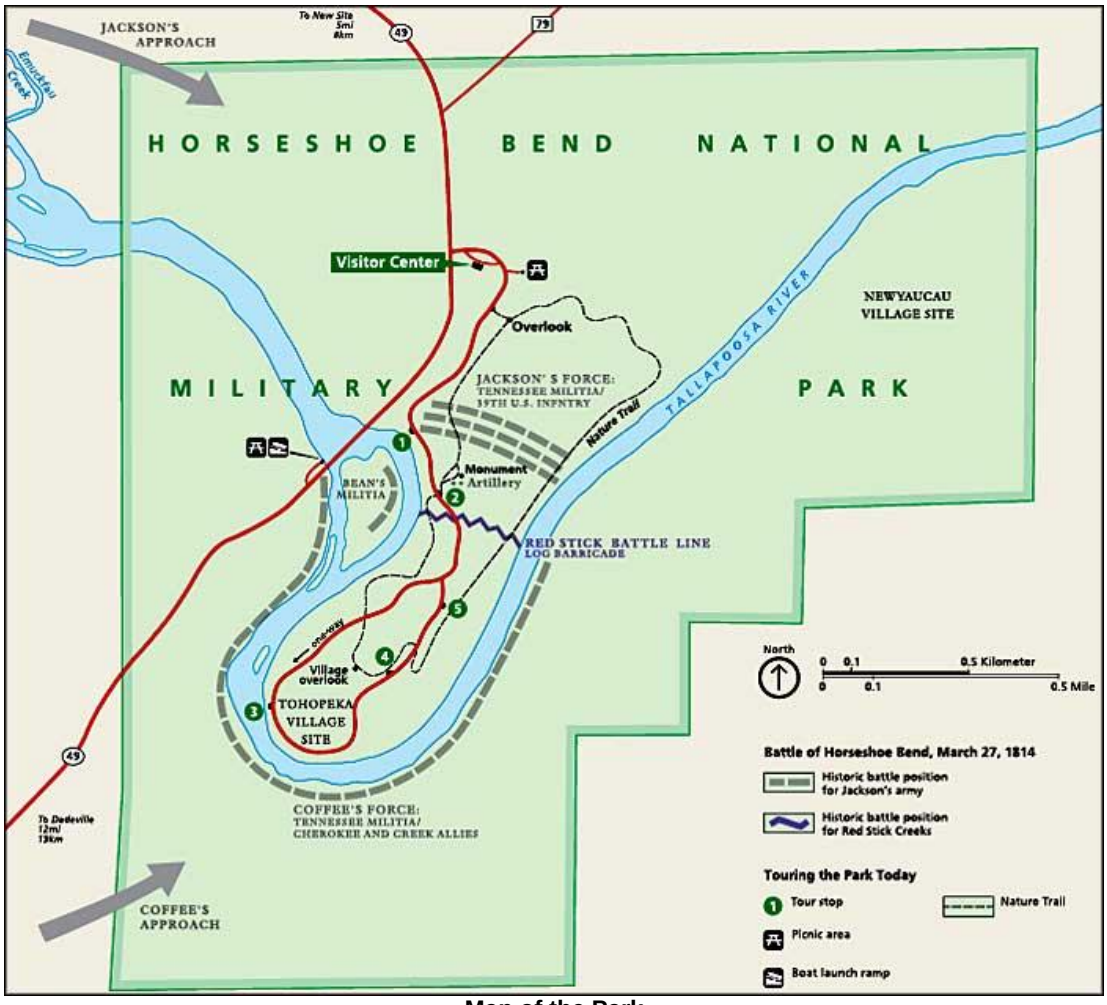
HOBE was established by Presidential Proclamation on August 11, 1959, as authorized by an Act of Congress, approved July 25, 1956. The park, containing 2040 acres, is located in eastern Alabama. The park preserves the battlefield and historic landscape in perpetuity, and makes this valuable part of America's heritage available to thousands of visitors each year for their experience, enjoyment, understanding, and appreciation. The park receives approximately 100,000 recreational visitors annually, and about one million total visits, including residential traffic.

The park was established to commemorate the last major battle of the Creek Indian War (1813–1814) which took place within a horseshoe-shaped bend of the Tallapoosa River, in what is now Tallapoosa County, Alabama. The Creek Indian War consisted of 17 battles, with the final most significant battle fought at Horseshoe Bend on March 27, 1814. In this battle 3,300 frontier troops and Indian allies under the command of Andrew Jackson defeated 1,000 Creek warriors who had fortified themselves behind a seemingly impregnable log barricade. More than 800 Creek Indians were killed, ending for all time the military power of the Creek Nation.

Therefore, the purpose of HOBE is to preserve and to protect the site of the last major engagement of the Creek War (1813–1814). The park interprets the events of the battle in the larger context of the War of 1812, as well as their impacts on the Creek people and the development of the United States.

The primary significance of HOBE can be summarized as:

- It is the only unit of the national park system east of the Mississippi River protecting the site of a battle between U.S. forces and an American Indian tribe. The battle resulted in the largest loss of life for American Indians in any single battle in U.S. history.
- The decisive battle cost the Creek Nation approximately 23 million acres of their homeland, which eventually led to the creation of the state of Alabama and contributed to the expansion of the young United States.
- The events at Horseshoe Bend established the national prominence of Andrew Jackson as a military leader and ultimately president of the United States.
- The village sites of Tohopeka and Newyaucau, together with the battlefield, present an exceptional venue for interpreting the history and stories of the Creek people in the 18th and early 19th centuries.
- The victory at Horseshoe Bend and other American victories gave leverage to the U.S. negotiators during the 1814 Treaty of Ghent, leading to a status quo antebellum agreement (return to prewar conditions).



Map of the Park

Location of the Park in Alabama

Chapter 2. State of the Park

The State of the Park is summarized below for four categories—Natural Resources, Cultural Resources, Visitor Experience, and Park Infrastructure—based on a synthesis of the park's monitoring, evaluation, management, and information programs, and expert opinion. Brief resource summaries are provided below for a selection of the priority resources and values of the park. Clicking on the web ▸ symbol found in the tables and resource briefs below will take you to the internet site that contains content associated with specific topics in the report.

The scientific and scholarly reports, publications, datasets, methodologies, and other information that were used as the basis for the assessments of resource condition are referenced and linked throughout the report and through the internet version of this report that is linked to the NPS IRMA data system (Integrated Resource Management Applications). The internet version of each report, and the associated workshop summary report available from the internet site, provide additional detail and sources of information about the findings summarized in the report, including references, accounts on the origin and quality of the data, and the methods and analytical approaches used in data collection and the assessments of condition. Resource condition assessments reported in this State of the Park report involve expert opinion and the professional judgment of park staff and subject matter experts involved in developing the report. This expert opinion and professional judgment derive from the in-depth knowledge and expertise of park and regional staff gained from their being involved in the day-to-day practice of all aspects of park stewardship and from the professional experience of the participating subject matter experts. This expert opinion and professional judgment utilized available factual information for the analyses and conclusions presented in this report. This State of the Park report was developed in a park-convened workshop.

The status and trends documented in Chapter 2 provide a useful point-in-time baseline measured against reference conditions that represent "healthy" ecosystem parameters, or regulatory standards (such as those related to air or water quality). We also note that climate change adaptation requires us to continue to learn from the past, but attempting to manage for conditions based on our understanding of the historical "natural" range of variation will be increasingly futile in many locations. Thus, these reference conditions, and/or our judgment about resource condition or trend may evolve as the rate of climate change accelerates and we respond to novel conditions. Our management must be even more "forward looking," to anticipate plausible but unprecedented conditions, also recognizing there will be surprises. In this context, we will incorporate climate considerations in our decision processes and management planning as we consider adaptation options that may deviate from traditional practices.

2.1. Natural Resources

Air Quality

web ▸

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Ozone	Annual 4th-Highest 8-Hour Concentration		Ozone warrants moderate concern. This condition is based on NPS Air Resource Division benchmarks and the 2008–2012 estimated ozone of 69.9 parts per billion (ppb). No trend information is available because there are not sufficient on-site or nearby ozone monitor data (NPS ARD 2013). List of ozone-sensitive plant species.
Deposition	Sulfur Wet Deposition		Wet sulfur deposition warrants significant concern. This condition is based on NPS Air Resource Division benchmarks and the 2008–2012 estimated wet sulfur deposition of 3.4 kilograms per hectare per year (kg/ha/yr). Ecosystems in the park were rated as having moderate sensitivity to acidification effects (Sullivan et al. 2011a; Sullivan et al. 2011b). No trend information is available because there are not sufficient on-site or nearby wet deposition monitor data (NPS ARD 2013).

	Nitrogen Wet Deposition		Wet nitrogen deposition warrants significant concern. This condition is based on NPS Air Resource Division benchmarks and the 2008–2012 estimated wet nitrogen deposition of 3.6 kilograms per hectare per year (kg/ha/yr). Although HOBE receives high levels of nitrogen deposition, ecosystems in the park are not typical of nitrogen-sensitive systems and were rated as having low sensitivity to nutrient-enrichment effects relative to all Inventory & Monitoring parks (Sullivan et al. 2011c; Sullivan et al. 2011d). No trend information is available because there are not sufficient on-site or nearby wet deposition monitor data (NPS ARD 2013).
Visibility	Haze Index		Average visibility warrants significant concern. This condition is based on NPS Air Resource Division benchmarks and the 2008–2012 estimated average visibility of 11.9 deciviews (dv) above estimated natural conditions. No trend information is available because there are not sufficient on-site or nearby visibility monitor data (NPS ARD 2013).

Geology and Soils

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Terrestrial Soil Erodibility	Soil Class Type Soil Erodibility Factor Critical Shear Stress		12 of 20 soil types in the park are moderately eroded including two of the three most abundant soils. About 20% of the soil types are occasionally to frequently flooded, including one of the three most abundant soils (Burkholder et al., in review).
Riparian Soil Erodibility	Streambank Erosion		There is little visual evidence of streambank erosion in feeder streams within the park (Burkholder et al., in review).
River Channel Erodibility (Tallapoosa River)	Riverbank Erosion		Park staff conducted transect-monitoring at three locations and identified substantial bank loss. Over the last several years, above-average precipitation, flooding, and high water levels have eroded the river bank in several locations.
Soil Acidity	Acidification Potential		Moderate based on air quality information considered together with the mid-to-poor buffering capacity of the mostly clay soils (Burkholder et al., in review).

Water Quantity and Quality

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Groundwater Quantity	Groundwater Level		Groundwater levels have decreased significantly at the well nearest to the park with a period of record exceeding 10 years (Rasmussen et al. 2009, Wright 2012). The latest data on groundwater levels are available from USGS.
Surface Water Dynamics	Discharge Magnitude		The Tallapoosa River at Wadley commonly sustains > 5-fold change in discharge for > 3 days during non-storm conditions (Burkholder et al. in review).
	Discharge Flashiness		The Tallapoosa River at Wadley commonly sustains high variation in discharge, ranging from ≈ 5- to 50-fold, over each 24-hr period during non-storm conditions (Burkholder et al. in review).
Water Chemistry Talapoosa River	Temperature and pH		100% of samples within Alabama state standards (between 6.0 and 8.5) (Burkholder et al. in review).
	Dissolved Oxygen Biological Oxygen Demand		100% of dissolved oxygen measurements were above AL standards of average concentrations of > 5.0 mg/L and minimum concentrations of 4 mg/L. 95% of samples met recommended concentrations greater than 3 mg/L (Burkholder et al. in review).
	Nitrate + Nitrite		84% of Nitrate + Nitrite samples met EPA recommended concentrations of < 177 µg/L (Burkholder et al. in review).
	Total Phosphorus		100% of total phosphorus samples met EPA recommended concentrations of < 30 µg/L (Burkholder et al. in review).
	Chlorophyll		84% of suspended microalgal chlorophyll *a* samples met EPA recommended concentrations of < 4 µg/L (Burkholder et al. in review).
	Turbidity		Only 44% of turbidity samples met EPA recommended standard of < 5.7 NTUs (Burkholder et al. in review).

Flora and Fauna

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Plants	Species occurrence and diversity		The park has 453 known plant species (NPSpecies database), and is host to one of the last remaining remnant longleaf pine stands in the area.
Exotic Plants	Number of exotic/ invasive species		Three invasive species identified by the Georgia Exotic Pest Plant Council as Category I occur in the park (i.e., species that invade intact systems, displace native vegetation, and alter ecological processes), including Chinese privet, kudzu, and honeysuckle (Burkholder et al. in review). Chinese privet is the primary species controlled by the park staff and EPMT.
Amphibians	Species occurrence and diversity Presence of pathogens		The diversity of amphibians at HOBE is high, with 32 species of amphibians documented to occur in the Park (20 species of frogs or toads, and 12 species of newts or salamanders) (Tuberville et al., 2005). Long-term monitoring began using visual-encounter surveys and nighttime auditory surveys and (Byrne et al. 2011b). An amphibian fungal pathogen was detected in two species at the park, one of which showed a substantial decline between two sampling events; however, other possible causative influences on this difference were not evaluated.
Birds	Species occurrence and diversity		Bird species diversity is high with 122 species known to occur in the Park (NPSpecies database). Long-term monitoring has been initiated using distance sampling methods (Byrne et al. 2011a).
Species of Management Concern	Longleaf Pine		Prescribed burns were conducted in 2006 and 2011, and are continuing to be scheduled at 5-yr .intervals in an attempt to allow natural regrowth of longleaf pines (Burkholder et al. in review). Planted seedling survival is greater than 50% and prescribed fires have reduced the fuelbed depth.

Resource Brief: Fire Management

Fire plays an integral role in the health of natural communities, and a natural ecological process at the park. Historic fire-return intervals at HOBE likely approximated 3–14 years (Wade et al. 2000) across all vegetation communities, but the park has likely experienced approximately a century of suppression. Fire was reintroduced to the park in 2006, with special emphasis on an approximately 2,000-acre remnant mixed longleaf-pine (*Pinus palustris*) community in the northwest part of the park. Because of the visually distinctive and characteristic growth pattern, its many anthropogenic applications, and unique species associations, longleaf pine is also an integral part of the cultural landscape at the park. The restoration potential of this stand was evaluated by experts from Auburn University, estimated a density of approximately one remnant longleaf pine per acre within the stand, and found to be a good candidate for the reintroduction of fire and planting longleaf seedlings. Approximately 2,000 longleaf seedlings were planted over several years in open areas within the longleaf stand, seedling survival varied, however overall survival and success is positive.

Prescribed fire in longleaf pine community, and young longleaf pine. Photos by NPS staff.

Resource Brief: Amphibians

Community Monitoring

Fowlers toad (*Anaxyrus fowleri*). Photo by J. D. Willson.

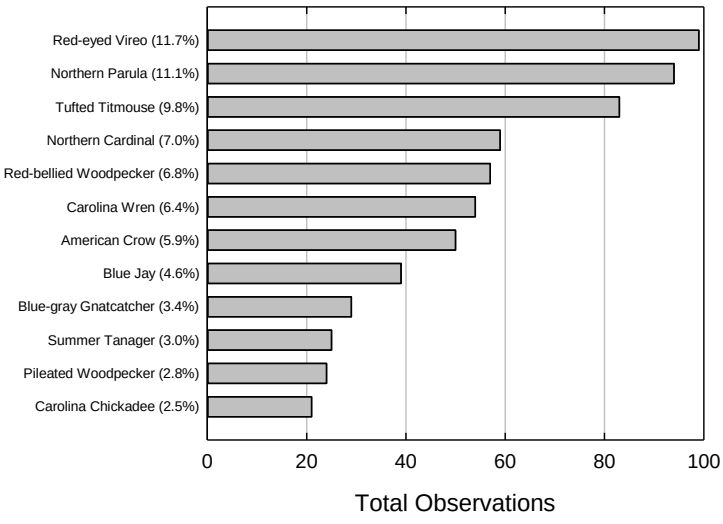
Amphibian communities in the southeastern U.S. are widely considered to be among the most diverse in the world, and they are a valued resource in parks in the Southeast (Byrne et al. 2013). Given their known population declines, sensitivity to anthropogenic stressors, and the diversity, amphibian communities are a priority for SECN monitoring efforts. HOBE is host to 32 known amphibian species, 20 of which are vocal anurans, and they occur in all vegetation-community types. Amphibian communities were monitored at HOBE in spring and early summer in 2009, 2011, and 2012 by the NPS Southeast Coast Inventory and Monitoring Network (SECN) (Byrne et al. 2011b, Smrekar et al. 2013a, Smrekar et al. 2013b). In 2009, pilot implementation of automated recording devices (ARD) was used to detect vocal anurans over a 14-day period at 30 locations across the Park. In 2011 and 2012, ARDs were used a longer 77-day period and visual-encounter surveys were also implemented at a different suite of 30 locations at the Park. No non-native species were detected in any of the three annual monitoring events. The 2009 test phase of the ARD was successful, and fully applied in 2011 and 2012. Seven species were detected in 2009, 13 in 2011, and 12 in 2012. VES detected an additional 12 species in 2011 and 22 in 2012. Fowler's toad (*Anaxyrus fowleri*) was the most widely distributed vocal anuran in 2009 and 2011, and American toad (*Anaxyrus americanus*) 2012. Monitoring efforts resulted in the addition of two species to the park's species list.

The Southeast Coast Inventory & Monitoring Network also sampled for chytrid fungus in 2006. Although the fungus was found at the park in southern two-lined salamanders (the first time observed in the genus), the no evidence of the disease caused by the fungus was found.

Resource Brief: Birds

Birds are an important component of park ecosystems, and their high body temperature, rapid metabolism, and high ecological position in most food webs make them a good indicator of the effects of local and regional changes in ecosystems. The park is host to 119 confirmed species. The Southeast Coast Inventory and Monitoring Network began conducting long-term monitoring of the bird community in 2009. An adaptation of the variable-circular plot (VCP) technique with distance estimation is conducted every three years. Data collected in 2009 serve as a baseline, and 53 species were detected as part of this monitoring effort (Byrne et al. 2011a). No non-native species were detected. An evaluation of sampling effort relative to the number of species detected indicated that the sample adequately characterized the bird diversity, and analyses suggest bird diversity is high at the Park. Northern cardinal (*Cardinalis cardinalis*) and Northern parula (*Parula americana*) were the most widely distributed species at the Park; occurring at all sampling locations. Red-bellied woodpecker (*Melanerpes carolinus*), red-eyed vireo (*Vireo olivaceus*), tufted titmouse (*Baeolophus bicolor*), Carolina wren (*Thryothorus ludovicianus*), and American crow (*Corvus brachyrhynchos*) were the second-most widely distributed species at the Park, detected in 87–97% of the sampling locations.

Northern cardinal (Cardinalis cardinalis). Photo by USFWS.



Total number of detections and percentage of the overall sample for the ten most common species.

Adjacent Land Cover and Use

web

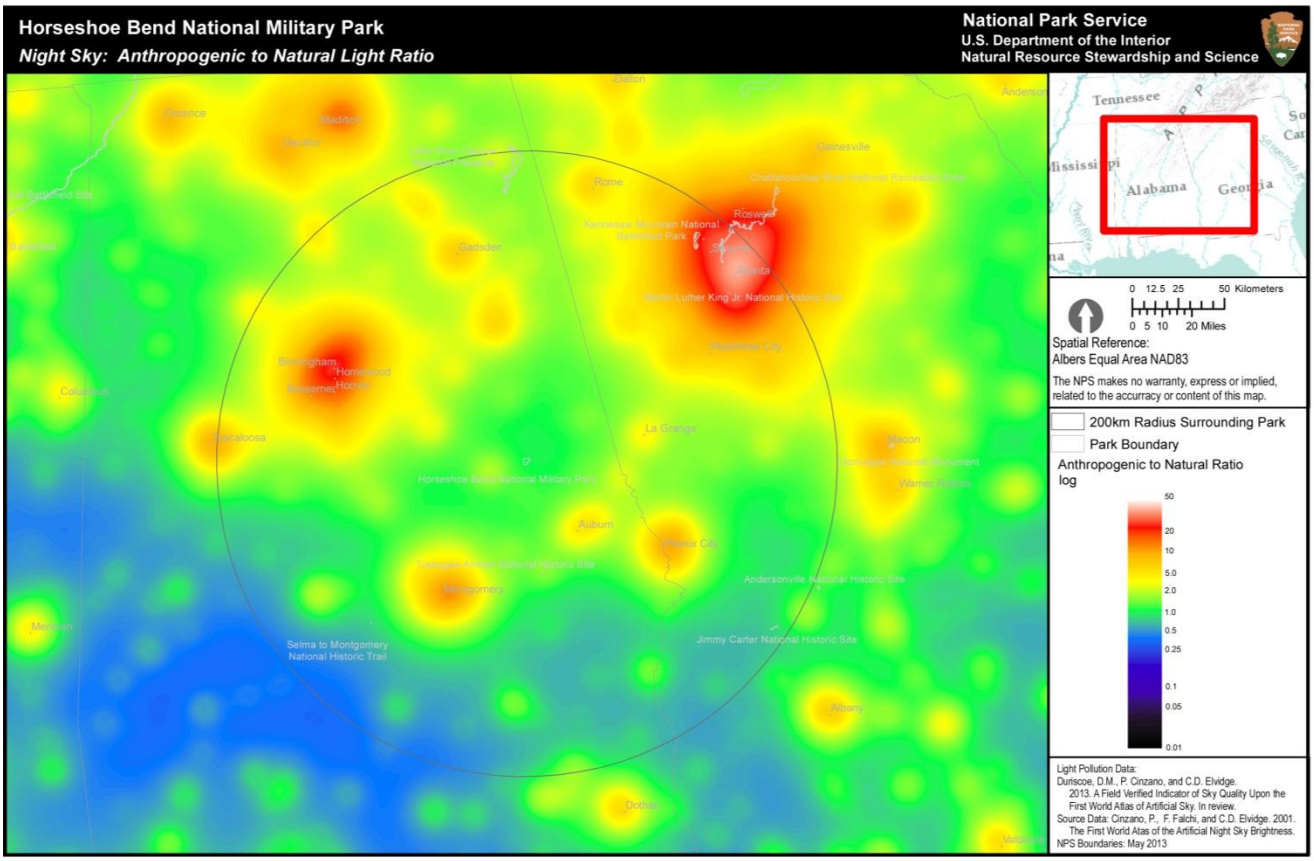
Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Adjacent Land Cover and Use	Impervious Cover		The only population center upstream and near to the park is New Site with a 764 people. Impervious Cover in the 5-km radius surrounding the park is negligible, totaling less than 1% of the land use/land cover (Burkholder et al., in review).
	Total Greenspace		The entire middle Tallapoosa River watershed had only 5% developed (urban/suburban) land as of 2006. In the five years between 2001 and 2006, there was a gain of only 0.1% in developed land use/land cover (Burkholder et al., in review).
Human Population Density and Demographics	Human Population		Human population growth in the area immediately adjacent to the park is decreasing at a rate of 1.1% per year, but increasing a rate of 2.6% per year within a 50 mile radius of the park (Burkholder et al., in review).

Dark Night Sky

web

The night sky has been a source of wonder, inspiration, and knowledge for thousands of years. Unfettered night skies with naturally occurring cycles of light and dark are integral to ecosystem function as evident by the fact that nearly half the species on earth are nocturnal. The quality of the nighttime environment is relevant to nearly every unit of the NPS system as the nighttime photic environment and its perception of it by humans (the lightscape) are both a natural and a cultural resource and are critical aspects of scenery, visitor enjoyment, and wilderness character. Based on these considerations and the non-urban character of the park, it is recommended that HOBE be categorized as Level 1 (more sensitive). Learn more in the document Recommended Indicators of Night Sky Quality, and the NPS Natural Sounds & Night Skies Division website.

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Anthropogenic Light	Anthropogenic Light Ratio (ALR) – Average Anthropogenic Sky Glow: Average Natural Sky Luminance		The modeled Anthropogenic Light Ratio (ALR), a measure of light pollution, was 1.23 which is considered moderate. The park is adjacent to several smaller cities whose growth rate over the last 5 years has been low to moderate (U.S. Census Bureau). Only the city of Auburn about 30 miles distant grew rapidly. The overall result is a stable trend in night sky quality.



NPS Natural Sounds & Night Skies Division and NPS Inventory and Monitoring Program MAS Group 20140109

Soundscapes

web

Every unit in the national park system has a unique acoustic environment, and every unit should understand what its desired acoustic environment would be. The quality of the acoustic environment affects visitor experience and ecological function. Acoustic resource condition, both natural and cultural, should be evaluated in relation to visitor enjoyment, wilderness character, ecosystem health, and wildlife interactions. Based on these considerations and the character of the park, the acoustic resource condition at HOBE warrants moderate concern under non-urban criteria. Learn more in the document Recommended Indicators for Acoustic Resource Quality (https://irma.nps.gov/App/Reference/Profile/2206094) the NPS Natural Sounds and Night Skies Division website (http://www.nature.nps.gov/sound/), and the figure below.

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
L_{50} Impact	L50 dBA – a measure of noise contributed to existing acoustical environment by anthropogenic sources.		The mean L_{50} Impact (L_{50} dBA), calculated as difference between existing ambient and natural ambient models, is 2.5 dBA. This indicates that the condition of the resource warrants moderate concern under non-urban criteria. Trend is deteriorating due to nationwide increases in ground-based (U.S. Federal Highway Administration, 2013) and aircraft traffic in recent decades (Federal Aviation Administration, 2010).

Resource Brief: Historical and Projected Changes in Climate at Horseshoe Bend National Military Park, Alabama

Climate change, in conjunction with other stressors, impacts all aspects of park management from natural and cultural resources to park operations and visitor experience. Effective planning and management must be grounded in our comprehension of past dynamics as well as the realization that future conditions may shift beyond the historical range of variability. Climate change will manifest itself not only as shifts in mean conditions (e.g., increasing mean annual temperature and sea level) but also as changes in climate variability (e.g., more intense storms and flooding). These changes may alter the vegetation composition and structure of cultural landscapes and accelerate weathering, deterioration, and loss of other cultural resources. In other words, land managers are dealing with both rapid directional change and multiple uncertainties (see references in Fisichelli 2014). Understanding climate change projections and associated levels of uncertainty will facilitate planning actions that are robust regardless of the precise magnitude of change experienced in the coming decades.

Historical climate trends

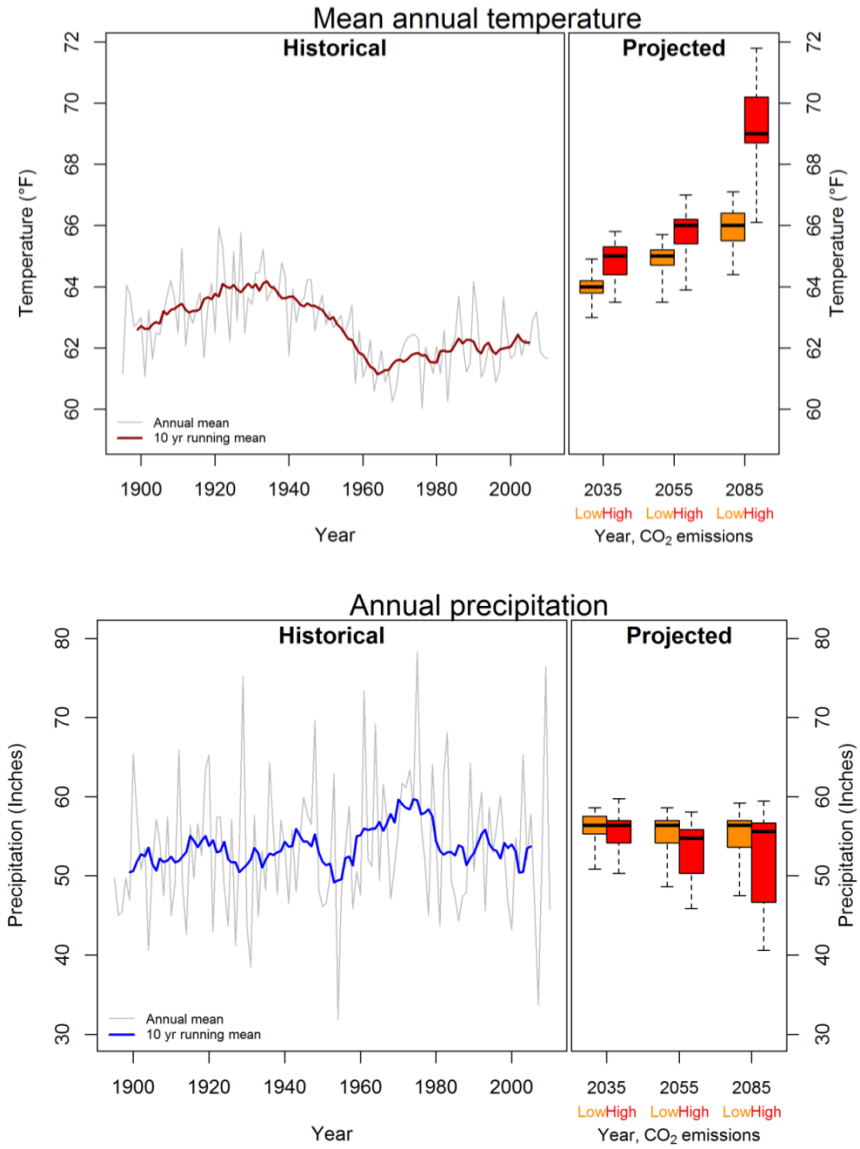
Climate trends for HOBE show complex patterns that vary across time periods and with specific climate measures (see Fisichelli 2014 for more details). Historical annual climate trends (1895–2010) for the park are based on gridded climate data acquired from the PRISM Climate Group (http://www.prism.oregonstate.edu). Across the entire 116 year record, mean annual temperature showed a significant decreasing linear trend (-0.17 °F per decade); however, since 1960 annual temperature has shown a significant increasing trend (+0.2 °F per decade, see Figure below). Annual precipitation showed strong interannual variability and no significant linear trend across the entire record.

A separate analysis (see reference in Fisichelli (2014) found recent (past 10–30 years) mean temperature during the driest quarter of the year and mean precipitation during the wettest month to be higher than 95% of all other periods of equal length since 1901. These patterns suggest more intense recent intra-annual climate variability for HOBE, namely hotter conditions during the driest time of year and wetter conditions during the already wettest month of the year.

Future climate projections

Although recent climate change trends have been relatively weak in the Southeast compared with other regions of the country, such as the Northeast and Alaska, considerable future changes are projected across the Southeast. Future climate projections for the area including HOBE are from multi-model averaged data (see references in Fisichelli 2014). Mean annual temperature, compared with the 1971–1999 average, is projected to increase 3–4 °F by mid-century and 4–7 °F by the end of the century, depending on the greenhouse gas emissions scenario (see Figure below). Past greenhouse gas emissions, long residence times of these gases in the atmosphere, and our current emissions trajectory suggest that climate change will be substantial. Warming by mid-century is projected for all seasons, with the greatest increases likely in summer. There is broad agreement among climate models in the direction and general magnitude of warming over the coming decades. Total annual precipitation may increase slightly by mid-century (see Figure below); however, precipitation variability is likely to remain large over the coming decades, and there is greater uncertainty in the direction of precipitation than temperature changes.

In addition to warmer mean temperatures and changes in annual and seasonal precipitation, climate change will exhibit itself in many other ways within the region including Horseshoe Bend (see references in Fisichelli 2014). These include more frequent heat waves, droughts, floods, and an extended frost-free season. The annual number of days with maximum temperatures > 95 °F is projected to increase 25–30 days by mid-century while the number of days with minimum temperatures below freezing is projected to decrease by 15–20 days (high [A2] emissions scenario 2041–2070 compared with 1980–2000). Small changes in total precipitation may mask large shifts in the precipitation regime and associated impacts to ecosystems. The annual number of days with heavy rainfall (> 1 inch) is projected to increase by 10–15 %, while the maximum number of days between rain events may increase by a few days (high [A2] emissions scenario, 2041–2070 compared with 1980–2000). Significantly warmer temperatures and a more variable precipitation regime may lead to both more frequent droughts and more severe flooding and erosion.



Historical and projected mean annual temperature and annual precipitation for HOBE. Historical data (1895–2010) for the park are averaged from PRISM gridded climate data (http://www.prism.oregonstate.edu). Projected climate change (30 year means) for the region including the park (data from Kunkel et al. 2013, see Fisichelli 2014 for references) are for three future time periods centered on 2035 (2021–2050), 2055 (2041–2070), and 2085 (2070–2099). Two greenhouse gas emissions scenarios are presented, the low (B1) and high (A2) scenarios (IPCC 2007). Projected climate boxplots indicate the variability in future projections among 14–15 CMIP3 climate models. Values for the area including the park are based on the mean model output for that location and the range of climate model projections for the region: the bold horizontal black line represents the mean among all models, the upper and lower bounds of the boxes indicate the 25th and 75th percentile model output values and the whiskers show the minimum and maximum values.

Resource Brief: Climate Change Effects at Horseshoe Bend National Military Park

Climate change is ongoing and past greenhouse gas emissions, long residence times of these gases in the atmosphere, and our current emissions trajectory suggest that future climate change will be substantial (Wigley et al. 2005, Peters et al. 2012). Even if greenhouse gas emissions are dramatically reduced in the future, Horseshoe Bend National Military Park will experience impacts from ongoing changes. Although the precise magnitude of these changes cannot be predicted, many trends such as changes in heat waves, insect pest outbreaks, and invasive plant species are already detectable and can be incorporated into park planning.

Warming temperatures mean not only increases in average temperature but also increases in extreme daily high temperatures (Kunkel et al. 2013). A shift of only a couple of degrees from mid 80s (°F) to low 90s can move visitors from a "Caution" to "Extreme Caution" zone according to the National Oceanic and Atmospheric Administration's Heat Index. With higher temperatures more frequent and occurring over a longer summer season, educating visitors of the dangers of heat and maintaining potable fresh water on-site may become more important for visitor safety. Increases in ozone pollution are also linked to more frequent heat waves.

Heat can be a key driver of forest impacts and insect pest outbreaks on trees (Meineke et. al 2013). Warming temperatures are predicted to increase evapotranspiration, drying forest vegetation and increasing wildfire risk. Increased evapotranspiration may also reduce streamflow (Ingram 2013). Currently, the park is within the infestation area of 21 nonnative tree pests (Fisichelli et al. 2014). Longer growing seasons will increase the risk of insect outbreaks and expand ranges of some species such as scale insects and cankerworm (Ingram 2013, Frank, S.D. in press). Southern pine beetle outbreaks are predicted to become more severe or persistent, this is particular important to consider in managing the longleaf pine stands, historically resistant, but still vulnerable during serious outbreaks (Gan 2004).

Climate change may increase risk from invasive plant species. Increased atmospheric carbon dioxide, longer growing seasons, and shorter cold snaps may allow invaders such as kudzu (*Pueraria lobata*), privet (*Ligustrum sinense*; *L vulgare*), and Japenese honeysuckle (*Lonicera japonica*) to grow more quickly and expand into new ranges (Bradley et al. 2010, Ingram 2013). These changes in invasibility may exacerbate weed problems and further bolster the need for early detection and focused eradication efforts in high-value areas.

2.2. Cultural Resources

Archeological Resources

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Knowledge	Percent of sites with known date ranges associated with a research theme		There are 32 known archeological sites at HOBE (ASMIS). Four of the 32 sites are related to research themes (8%). Of the 2,040 acres, 85 acres of the core battlefield area has been surveyed using remote-sensing technology. Other high probability areas of the park have been subject to pedestrian survey to locate historic resources. Major archeological excavations have taken place at both American Indian village sites.
Inventory	Percent of park adequately surveyed		Approximately 4% of the park acreage has been surveyed to professional and NPS Regional standards.
Documentation	Percentage of known sites with adequate National Register documentation		100% of the known sites have been evaluated for their National Register potential. Additional documentation is needed for the sites that were administratively listed to the National Register (1976). A National Register update and HRS is funded for FY 2014.
Condition	Percentage of archeological resources in good condition		As of the last visit, 100% of the known sites are in good or better condition. The above ground structural portion of the Miller Bridge ruins is actively deteriorating. Some sites are under threat because of erosion, invasive species (animal and plant). Site visits to the Newyaucau area are limited based on cuts to staffing.

Resource Brief: *"…of remarkable compactness and strength."* The Barricade and Remote Sensing at HOBE

Stretched across the peninsula of Horseshoe Bend was the primary defensive work of the Red Stick Creeks engaged in defending their lives, their culture, and land. According to Andrew Jackson, the barricade was "eighty poles in length, from five to eight feet high & of remarkable compactness and strength…" It was "prepared with double rows of Port Holes well formed & skillfully arranged [and] was of such a figure that an Army could not approach it, without being exposed to a cross fire." The initial cannonade of Jackson's three pounder and six pounder cannon failed to breach the structure. Only by a costlier infantry assault was Jackson able to take the barricade.

The burning of the barricade after the battle and subsequent farming over the next century obliterated all evidence of the barricade above the ground. Early archeological surveys were able to locate what appeared to be sections of the barricade. But, questions remained, such as why did the location of those sections seem to be placed at a lower elevation, which would seem to defeat a tactical advantage. In the 1980s, the park placed a row of white markers demarking the approximate location of the barricade as a visual reference for visitors viewing the battlefield from the Overlook on Cottonpatch Hill. In the summer of 2014, an attempt was made to answer these questions and definitively locate the barricade.

A geophysical survey was undertaken of the core battlefield area and the barricade location. Five separate geophysical machines were used. All of the machines produced evidence that is interpreted as the remains of the barricade. Data gleaned from the remote sensing project seemed to confirm earlier archeological evidence of the barricade location.

The information, which includes location and size, aids the park in understanding of the battle and the strength of the Creek defense. By understanding the size and the location of the barricade and the tactics of both sides, the effectiveness of the barricade against

contemporary artillery can be postulated. An earlier systematic metal detector survey of the battlefield also showed the weaponry employed by each side, the composition of their weaponry, and the placement of field artillery during the battle.

Archeologists from SEAC use ground penetrating radar to accurately determine the location of the barricade on the battlefield at HOBE.

The remote sensing survey was undertaken as a cooperative endeavor by the Southeast Archeological Center (SEAC), the park, Lehigh University, and Auburn University. Their work has added a great deal of knowledge to the story of the Battle of Horseshoe Bend and the people who fought in it.

Resource Brief: Tradition vs. Refuge – Archeological Evidence and Comparison of Newyauca and Tohopeka Village

The Newyauca and Tohopeka village sites are fundamental archeological resources of Creek culture at Horseshoe Bend National Military. As such, any information gleaned from these sites help the park tell the story of the rich Creek culture that was prevalent in this area and parts of modern-day Georgia.

A permanent Creek town in the area was established in the 1770s. It was later named Newyaucau sometime around the time of the 1790 peace treaty, signed in New York between the Creeks and George Washington. There is also evidence that it was named earlier than this by a New York Loyalist in the area. The village was destroyed in a militia attack three months before the Battle of Horseshoe Bend. The survivors were among those who fought at Horseshoe Bend at the Tohopeka refuge village.

Excavations at the Newyauca site have yielded fragments of American Indian pottery, stone tools (a whetstone, a knife handle, and a metate), a gun flint and a flintlock steel. These artifacts help fill in pieces of the puzzle about life in Newyauca and other Creek traditional towns.

But the village of Tohopeka was founded for a different reason than tradition and a place to live. Tohopeka (To-hope-ka, rather than To-ho-pe-ka), was founded as the result of the destruction of several Creek towns in the fall of 1813. The word itself means “fort” in Muscogee. Little archeological work has been done at the village site.

However, this lack of information may change in the next few years. At least one project is formulated with work by SEAC scheduled to start in FY 2017 that would perform the same types of remote sensing survey completed at the barricade site on the Tohopeka village site. One of the important questions that may be answered deals with possible differences between traditional Creek towns and a “temporary” village meant for defense or refuge.

Wayside exhibit marking the "High Ground" area overlooking the Tohopeka Village Site in the park.

Cultural Anthropology

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Knowledge	Sufficient research exists to understand the relationship of the park's ethnographic resources and the historic contexts		To date there has been no documented ethnographic overview and assessment conducted at the site. Although there has been significant focus on the site in terms of natural resources and tangible/material resources such as cultural landscapes and archaeological findings; site significance can be increased by learning about and interpreting the lives of people and communities with ties to the park historically and presently. These people and their associated resources are the contemporary park neighbors and ethnic or occupational communities that have been associated with a park for multiple generations and whose interests in the park's resources began before the park's establishment. The Enabling Legislation commemorates the final decisive battle of the Creek War of 1813. The park interprets the cultural relationships and conflicts leading to the Creek War as well as the War's impact on the Creek people, and on the War of 1812 and on the western expansion of the United States and the role this war played in the career of Andrew Jackson and the development of our nation. It is anticipated that an Ethnographic assessment that in part focuses on the Creek and Cherokee nations and communities and their relationship to and interpretation of the park today would help expand and complement the story NPS tells about the site.

	Appropriate studies and consultations document ethnographic resources and uses with regards to the park.		The completed CLR study provides some insight into people and communities and their associations with the park from a land use and natural resources perspective. HOBE has an outstanding PMIS #199911A, funded for FY 2016, for an Ethnographic Overview and Assessment. The Special History Studies by Dr. Kathryn Braund of Auburn University includes ethnohistorical information.

Resource Brief: An Historic Homecoming – The Bicentennial and Tribal Relations at HOBE

Early tribal involvement in planning of the recent Bicentennial commemoration created the opportunity to enrich the relationship with the Muscogee (Creek) Nation of Oklahoma, the largest of the park's twelve Federally-recognized affiliated tribes. This cooperation between the park and tribal partners has built stronger ties to the park and its resources.

Members of the Muscogee (Creek) Nation delegation at the Horseshoe Bend Bicentennial commemoration.

The Bicentennial commemoration itself was host to a historic homecoming, as a contingent of approximately 300 elders, officials, ceremonial leaders, and citizens of the Muscogee (Creek) Nation of Oklahoma were invited to participate in the events. According to the tribal government, this was the largest organized movement of the Muscogee (Creek) Nation in Alabama since removal in the 1830s.Chief George Tiger reflected on the legacy of the battle for his people: "Through adversity, we gain strength. A battle may have been lost here 200 years ago, but as Muscogee people, we are still here.

In addition, members of the Muscogee (Creek) Nation who are prominent artists brought back and displayed examples of their work for public viewing at Horseshoe Bend. This provided an excellent opportunity for the regional community to witness the vibrancy of their culture today and how it is still historically tied to the local area.

The bicentennial events continued with a ceremonial stomp dance, the first at the site of the Creek village known as Tohopeka since 1814, although previous commemorations have included stomp dances near the park's visitor center. Edwin Marshall, Public Relations Manager of the Muscogee (Creek) Nation said of the commemorative events, "That's what perpetuates a people, to always look back to where you came from. And that's why we're here today." Mr. Marshall called upon all park rangers—those who are caretakers of this land—to take part in a special dance along with ceremonial elders and members of the Creek delegation. The final event of the day took place that evening, with the reveal of 870 luminaries, representing the lives lost and demonstrating the cost of the Battle of Horseshoe Bend.

Cultural Landscapes

web

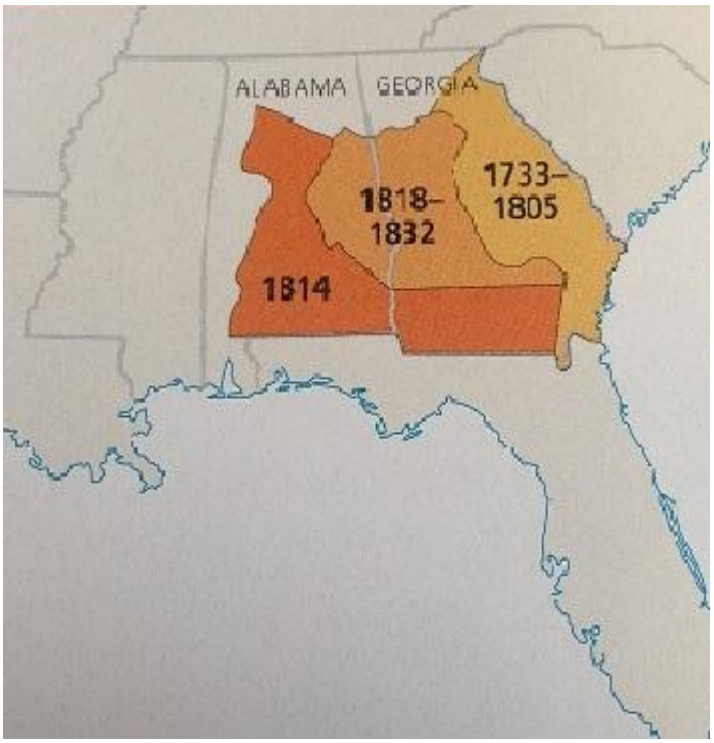
Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Knowledge	Sufficient research exists to understand the relationship of the park cultural landscapes to the historic contexts of the park.		A Cultural landscape Report (CLR) completed in 2013 addresses the entire park. The CLR includes a site history and evaluates the National Register significance and integrity of the landscape. This report contains research that places the cultural landscape in historical context, provides baseline documentation, and relies on current scholarship. Two Special History Studies (2003 and 2005) completed by Creek historian Kathryn Braund also address the eighteenth-century landscape.
	Adequate research exists to document and preserve the cultural landscape of the park.		The CLR documents the historic and existing conditions and provides treatment recommendations for the preservation of contributing resources. Archeology can offer new information, however preservation should continue. The park needs a battlefield management plan to assist with long term management of the cultural landscape.
Inventory	The scope of cultural landscapes in the park is understood and a determination has been made whether or not they are a fundamental resource.		The park Foundation Document identifies the Battlefield landscape as a Fundamental Resource and includes specific mention of Tohopeka Village site, Newyaucau Village Site, the Congressional Monument and Jackson Trace marker, and all archeological resources related to the battle or Creek Culture as Fundamental Resources. These resources are nationally significant.
	Percentage of landscapes eligible for the National Register with accurate, complete, and reliable Cultural Landscape Inventory (CLI) data.		100%. In 2012, a Cultural Landscapes Inventory (CLI) was certified for HOBE. The CLI was signed by the park Superintendent and the Alabama State Historic Preservation Officer (SHPO). Additional data from the updated National Register nomination is needed.
Documentation	Percentage of cultural landscapes with adequate National Register documentation.		Cultural landscapes are not adequately addressed in the National Register nomination (1976). The nomination needs to be expanded to include a more thorough historic context and one that covers the commemorative period, Mission 66 development, and local twentieth-century history. The period of significance should reflect the Creek occupation and battle (1777–1814). The nomination narrative should be amended to address spatial organization and topography related to the battle. A Historic Resource Study and National Register nomination update is funded for FY 2014 to address these issues.

Resource Brief: A Living Sketch of Creek Life – Horseshoe Bend and the Creek Landscape of the Eighteenth Century

The historic landscape of Creek country stretched over 62,000 square miles. In the decades leading up to the Battle of Horseshoe Bend, natural landscape shaped the pattern of settlement and land use by Upper and Lower Creek tribes. While Creek territory encompassed several distinct physiographic provinces, a system of waterways defined the landscape. Creeks built towns and farmed along rivers, streams, and tributaries and relied on natural resources for food, shelter, and necessities.

The forests of Creek country provided hunting grounds for the Creeks and the deerskin trade sustained their late eighteenth-century economy. Research by historians and ecologists reveals the prominent role of fire during the Creek era. Natural or man-made fires cleared the forest floor of debris and improved habitat for animals. A landscape cleared by fire resulted in open space for cultivation and nutrient-rich soils.

The system of waterways in the Creek landscape included rivers, creeks, streams, and tributaries. Almost all Creek towns were located along a waterway and access dictated the location and siting of towns. Often waterways and Creek towns shared names, sometimes emphasizing characteristics like *weoka* "rushing water" while other place names described topography or distinct features. Horseshoe Bend derived from *cholocco litabixee*, or "horse's flat foot". The Creeks used waterways for transportation and fished at shoals and waterfalls each spring and summer. Rivers and streams ran clear during the eighteenth century until the silt run-off from the extensive nineteenth- and twentieth-century farming clouded the streams.



A map of Creek lands and the time periods when the lands were ceded to Great Britain and the United States.

Historic Structures

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Knowledge	Percentage of historic structures evaluated using appropriate historical contexts.		100%. All of the Park's historic structures have been identified and evaluated in the appropriate historical context primarily provided by the LCS and NRN. The park historic structures need to be evaluated and taken to the next level which would be HSR for all monuments and structures and perhaps a condition assessment.
Documentation	Percentage of historic structures with adequate National Register documentation.		There are 4 historic structures in the park (Congressional Monument, Jackson trace marker/Daughters of 1812 Monument, Miller's Bridge Piers, and Montgomery, Lemuel Pernell Grave Marker). All of the historic structures have National Register Nomination, but they need to be updated. The National Register nomination is being updated in FY 2014.

	All historic structures have been recorded commensurate with their significance and mandated purposes.		The park monuments are documented in the LCS and the National Register Nomination. There are no historic structure reports for the park's monuments. The park needs to prepare at least one historic structure report which includes all of the above mentioned monuments. This would facilitate park planning for stabilization/preservation of Miller's Bridge Piers and other monuments.
Condition	Percentage of historic structures in good condition		50% of the park historic structures are in good condition. Miller's Bridge Piers is not in good condition and needs to be stabilized. The piers could become hazards to navigation.

History

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Knowledge	Sufficient research is conducted to understand significance of site.		Although the park's existing National Register nomination addresses the significance of the site, it is outdated and too brief. Furthermore, HOBE's cultural significance goes far beyond the fact of being the site of an important battle. Through time, the park's significance has evolved and changed, and new documentation in the form of an updated National Register nomination and a Historic Resource Study (possibly in conjunction) are needed and funded for FY 2014.
	Sufficient research is conducted to establish the reasons for park creation and site history.		HOBE was not established until 1956, after it was threatened by impoundment for hydroelectric power. These facts alone make a thorough Administrative History for the park imperative. Such a study will provide many angles for interpreting regional and corporate (Alabama Power) history and the history of commemoration in the NPS.
	Research at the appropriate level precedes planning decisions involving cultural resources.		The Superintendent has made updating of Cultural Resource baseline documentation a priority in order to facilitate better planning decisions involving cultural resources.
Inventory	Percentage of cultural resources listed in appropriate Servicewide inventories, including the National Register.		100% of the park's historic structures and cultural landscapes are inventoried in the LCS and CLI, and a National Register nomination (1976) has been signed by The Keeper. An update of the latter has been approved for FY14.
Documentation	Percentage of historic properties with adequate Nat'l Register documentation or with Determinations of Eligibility.		The current 1976 National Register nomination is inadequate to the interpretive needs of the park. The National Register Nomination is being upgraded in FY14.

Museum Collections

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Inventory	The scope of museum collections in the park is understood. All resources have been surveyed to determine their appropriateness for inclusion in the museum/archive collection.		Yes. The Scope of Collection Statement (SOCS) was reviewed and updated in FY 2012, approved in FY 2013. Tribal consultation was part of the overall review.
	Percentage of objects accessioned and cataloged		93.79% of the museum collections are cataloged. There are 1,313 artifacts in the archeological backlog and 2,500 items in the archival backlog. The park needs an updated archival survey (2004).
Documentation	Park has current and appropriate baseline documentation (Scope of Collections Statement, Collection Management Plan, Housekeeping Plan(s), IPM Plan(s), EOP, Security and Fire Safety Plan(s), and Conservation Survey(s).		No. The park has the following: Collection Management Plan (CMP) – scheduled for FY 2015 SOCS – 2013 Fire and Security Survey – none Collection Condition Survey (CCS) – no parkwide CCS, but a specific survey was completed for the Creek beaded bag in FY 2013 Archival survey – 2004 Collection Storage Plan (CSP) – FY 2014 Emergency Operations Plan (EOP) – priority; Park will do this in-house Integrated Pest Management Plan – parkwide IPM plan completed in FY 2012 Housekeeping Plan – none
Condition	Overall condition of the collection based on condition survey and improvements to storage.		Condition of the collection is good. The condition will improve in FY 2014 with the Collection Storage Plan and subsequent storage improvements. The park museum collections are currently stored in a small room with an exterior door, and managed by a park ranger with the collateral duty. The archeological collections are stored at SEAC.

Resource Brief: Whale Rifle

A prominent feature of the Horseshoe Bend NMP Museum Collection on display in the Visitor Center is the Whale Rifle. This rifle was presented to one of the Cherokee warriors allied with the US and the Creek National Council forces who were stationed across the Tallapoosa River to prevent escape of the Red Stick forces. Whale, also possibly known as Tocqua or Tuoqua, and his companions swam across the river appropriated canoes to ferry the rest of the Cherokee Creek National Council forces across to attack the Red Sticks and the village of Tohopeka from the rear. This attack resulted in the Red Stick forces having to respond to the attack from the barricade and enabled Jackson's frontal assault to carry the barricade.

The rifle was intended for presentation by President Madison Whale, for his "valor and heroism" at the Battle of Horseshoe Bend. Whale was one of the first to cross the river in the battle, thus helping to ensure Jackson's victory. Two rifles were ultimately built for Whale but it is unknown which, if any, he received.

Image of the Whale Rifle on display inside the HOBE visitors center.

Resource Brief: A Symbol of Commemoration – the Bicentennial Pendleton Mills Blanket

During the commemorative ceremony for the Bicentennial of the Battle of Horseshoe Bend on March 27, 2014, Principal Chief George Tiger of the Muscogee (Creek) Nation presented the park with a ceremonial blanket. The blanket, a beautiful example from the Pendleton Woolen Mills, commissioned by the Muscogee (Creek) Nation and known as the "Perpetual Blessing" pattern, was accepted by park Superintendent Doyle Sapp. The gift was given to represent the relationship between the park and the Muscogee Nation and in appreciation for the efforts of park staff to commemorate the Bicentennial in a balanced, inclusive fashion. Chief Tiger asked that the blanket be put on display at the park.

As part of a Collection Storage Plan and its implementation, funded by the Servicewide Cyclic Maintenance (Cultural) Program, a display will be created to fulfill Chief Tiger's request, as well as protect this gift for the appreciation and understanding of future generations. The blanket will be displayed as a symbol of cooperation and commemoration.

Left: **Park Superintendent Doyle Sapp receives blanket on behalf of the National Park Service from the Principal Chief of the Muscogee (Creek) Nation, George Tiger during Bicentennial activities at HOBE.** ***Right:*** **The ceremonial blanket.**

Resource Brief: The Power of Conservation – Horseshoe Bend's Beaded Bag

In 2013, a Creek beaded bag in the Horseshoe Bend museum collection was sent to the NPS Harpers Ferry Center for much-needed stabilization and conservation. The bag, which was possibly created for the tourist trade, was in deteriorated condition with broken and loose threads, loss of seed beads, and other damage. Conservators, working in concert with HOBE and Southeast Region Museum Services staff, were able to repair and stabilize the bag, as well as mount it for possible display, after an estimated twenty-five hours of painstaking work. The bag was returned to the park later that year.

This Beaded Bag received conservation attention at Harper's Ferry Conservation Center.

2.3. Visitor Experience

Visitor Numbers and Visitor Satisfaction

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Number of Visitors	Number of visitors per year	↓	The total of 55,965 visitors to the park in 2013 is lower than that of 2011 (65,892) and 2012 (58,668) and also lower than the 10-year average of 69,085 visitors for 2003–2012.
Visitor Satisfaction	Percent of visitors who were satisfied with their visit	↔	Based on the standard visitor satisfaction survey conducted each year, the percentage of visitors satisfied in FY12 was 97.0%, which is similar to the average for the previous five years (98.5%) and ten years (98.0%). Source: 2012 Visitor Survey Card Data Report

Interpretive and Education Programs – Talks, Tours, and Special Events

↔

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Education Programs	Number and quality of programs, and number of participants	↑	The number of educational programs has increased over the past few years with the development of summer programs and through the Teacher Ranger program. The number of school groups visiting the park has decreased due to proration of state education budgets.

Ranger Programs	Number and quality of programs and attendance		The number of ranger programs has decreased about 37% over the past five years from an average of 256 for the previous 5 years to 187 last year.
Junior Ranger Programs	Number of programs and attendance		The number of Junior Ranger participants has increased to an average of 328 in 2013 from a 5 year average of 314 and a 10 year average of 221. The 48% increase over 10 years is because the park now has special event Junior Ranger programs and has modified the program to reach a broader audience.
Special Events	Variety and longevity of events, community involvement		The park has held 2 special events a year for the past 14 years. The size of the one event has decreased over the past years from a two day event to a one day event. Last year the largest event was cancelled due to sequestration. The size of the events has decreased due to funding and staffing issues.

Resource Brief: Connecting Two Hundred Years of History to a New Generation – Bicentennial Junior Ranger Program

During the Bicentennial commemoration events in March of 2014, the Junior Ranger Program at Horseshoe Bend National Military Park was transformed to incorporate the special events that took place. Junior Rangers have long enjoyed a very active and curriculum based program at the park, but with living history demonstrations taking place these young visitors had a unique opportunity to participate in activities that many people only read about.

To become a Bicentennial Junior Ranger, participants young and young at heart viewed exhibits located in the Visitor Center and visited demonstration camps. The camps offered various activities including basket weaving, playing stick ball, militia recruiting and Creek stomp dancing. Potential Junior Rangers had to participate in several of these activities to be sworn in.

To mark the two hundred years that have passed, a special Junior Ranger patch was developed to be presented along with the traditional badge. The patch was designed to showcase many of the historic elements of the park including the Tallapoosa River, the barricade that was built by the Red Sticks tribe, and the cannons that were fired by Andrew Jackson's forces.

Interpretive Media – Brochures, Exhibits, Signs, and Website

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Wayside Signs	Condition and currency of signs		New wayside exhibits were installed in 2008. The condition of the waysides is good and the artwork commissioned for the exhibits is highlighted in the museum. The opportunity/need for a natural resource exhibit exists in areas such as at the boat ramp to highlight the park's natural resources.
Park Directional Signs (off-site)	Usefulness, quantity, and placement		The usefulness, quantity and placement of off-site signs are adequate, but the condition of the signs is poor. The signs are maintained by the state DOT.

Museum Exhibits	Quality, accessibility and accuracy		The museum exhibits need to be updated to include more hands on experiences and audio visual opportunities. Currently the museum is predominately text and lacks the ability to have rotating exhibits. The artifact cases are deteriorating and will become hazardous to the collection if not replaced.
Print Media	Accaccuracy and availability of primary park publications		The park's brochure is easily available in the visitor center and on the website. The brochure was reprinted in 2014 and accurate.
Audio-visual Media	Orientation Films		The park's film was produced in 2004 which was a vast improvement from the 1980s slide show.
	Other AV material		The park does not currently have an audio tour since the cassette tape was taken out of use in 2010. There is a light show with audio in the museum (quite possibly from the 1960s) and is a popular exhibit with accurate information.
Websites	Currency and scope of website; number of website visitors		The park website is maintained on a regular basis. Events, alerts, and special programs are posted.
	Social media: Facebook updates and "likes," overall activity		A Facebook page was created in 2014 prior to the bicentennial. There are currently 1,003 likes on Facebook.

Resource Brief: Witnessing the Cost of Battle – The Bicentennial Luminaries

On the evening of March 27, 2014, luminaries at Horseshoe Bend National Military Park were lit in honor of the slain from a battle 200 years ago. A barrier was established along the middle of the field, and on one side were luminaries scattered and sparse, representing the roughly 70 soldiers and Creek and Cherokee allies who lost their lives in the battle. On the other side, however, was a sea of luminaries representing the nearly 800 Creek warriors who died. On the hill overlooking the field were families waiting for sundown to see the lighted spectacle. People came to the park from as far away as Georgia, Texas, West Virginia and New Jersey. Locals James and Carla Talton were in attendance. "It's a shame more people don't come out here," said Carla Talton. "We come out here every day and it's just a beautiful place." James Talton was particularly excited, noting that he is a Muscogee descendent.

This display was made more meaningful by the participation and visit of approximately three hundred members, dignitaries, and ceremonial leaders from the Muscogee (Creek) Nation. These distinguished guests assisted with placing the luminaries and stood witness to the power of this display and its representation of the cost of battle.

A member of the Muscogee Creek Nation Light Horse Explorer's Program who traveled from Oklahoma to the battle site looks over the vast field of candles as night falls.

Accessibility

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Mobility	ADA compliance		All visitor facilities are ADA compliant. All tour stops on the auto tour are ADA compliant.
Visual accommodation	ADA compliance		The park's brochure is available in braille but needs to be updated since it was produced in the 1970s. The regular brochure has been updated over the decades. The wayside exhibits and museum have no visual accommodations.
Auditory accommodation	ADA compliance		The park's film has closed caption available. There is currently no audio tour available.
Public transportation	Access to park via public transportation		There is no public transportation available to the park due to its rural location.
Multi-lingual resources	Audio and print materials in multiple languages Bi-lingual staff		The park's brochure has been translated into German and French and is requested in one of these languages about once a year. The park would benefit from a Spanish and Korean translation due to the increased number of visitors speaking these languages. There is no bilingual staff. The exhibit panels and film are not translated into different languages.

Safety

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Visitor Safety	Recordable incidents		The safety of visitors is a park priority. The park works to quickly identify and mitigate potential hazards, and the number of accidents is very low.
Staff Safety and Training	Number of staff trained		Operational Leadership Training has been completed by park staff, and CPR, First Aid, and AED training are offered to staff on a space available basis. Job Hazard Analysis is conducted before jobs throughout the park. Regular safety messages are given and distributed to staff members.

Partnerships

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Volunteers	Number and hours contributed		The number of volunteers has decreased over the past 5 years due to smaller events and cancellation of events. Last year the number of volunteers was 17 and the number of hours was 843. The average number of volunteers over the previous years was 52 with an average number of hours of 1,282 per year.
Partnerships	Number of official and unofficial partnerships		The only official partnerships the park has are with the Friends of Horseshoe Bend, Town of New Site, Tallapoosa County Sheriff & EMA and Eastern National. Unofficial partnerships include Wind Creek State Park, Ft Toulouse Historic Site, Auburn University, Horseshoe Bend School, and Tallapoosa County Extension Agency. The park's relationship with neighboring national parks has increased over the past year.

Resource Brief: Bringing the Past to Life – Living History at Horseshoe Bend

Every March, Horseshoe Bend National Military Park brings the past back to life with living history demonstrations. Camps sprawl across the park and demonstrators present how life for inhabitants in the southeast would have been during the 1800s. Children of all ages get opportunities to learn through spirited accounts that bring the history to life right in front of their eyes. Volunteers and members of the Friends of Horseshoe Bend National Military Park partner with National Park Service employees to present this annual event around the anniversary of the Battle of Horseshoe Bend

Visitors are also treated to weapons and black powder demonstration. The sounds of reproduction muskets and cannon can be heard throughout the park. Volunteers dressed as members of the Tennessee Militia demonstrated the training and discipline needed by soldiers during times of war.

The event showcases cultural representation from all groups that were involved during the battle. The 2014 living history program helped to commemorate the Bicentennial of the Battle of Horseshoe Bend and brought about the program's largest attendance. Visitors and demonstrators braved all types of elements to participate in a once in a lifetime event.

A living history demonstrator shows visitors items that were common among Creek and Cherokee traders in the early 1800s during an event at the park.

2.4. Park Infrastructure

Overall Facility Condition Index

web

The National Park Service uses a facility condition index (FCI) to indicate the condition of its facilities and infrastructure. FCI is the cost of repairing an asset, such as a building, road, trail, or water system, divided by the cost of replacing it. The lower the FCI number, the better the condition of the asset. The condition of the buildings and other infrastructure assets at each park is determined by regular facility inspections, or "condition assessments", including daily informal inspections and formal yearly inspections. Deficiencies identified from these assessments are documented in the NPS Facility Management Software System and the cost for each repair determined. Repairs that cannot be completed within the year count against the condition of a structure. The total cost of these deferred repairs divided by the total cost to replace the structure results in the FCI, with values between 0 and 1 (the lower the decimal number, the better the condition). The FCI is assigned a condition category of Good, Fair, Poor, or Serious based on industry and NPS standards. Deferred maintenance projects that require additional funding are identified based on FCI. Planned preventive maintenance on critical components occurs during the year, using a park's base budget. For additional information about how park managers use information about the condition of facilities and infrastructure to make decisions about the efficient use of funding for maintenance and restoration activities at the park, Click Here.

Asset Category	Number of Assets 2008 / 2013	FCI 2008 / 2013	Condition Status/Trend	Rationale
Buildings	25 / 27	0.290 / 0.189		The park buildings are in good condition. There are PMIS projects that have not fallen into the Deferred Maintenance classification as of yet. The exception is the Maintenance Building which has an FCI of 1.50 which causes the category to be red. There is a current PMIS project to replace the building but it has not been formulated at this time.
Campgrounds	1 / 1	0.000 / 0.000		The campground is a trailer site. It is used only for long term volunteers in the park that travel with their personnel trailer. The site is equipped with electricity, water and waste water.
Trails	2 / 2	0.477 / 0.486		There are two trails in the park. The Boy Scout Primitive Trail and the Nature Trail. The Boy Scout Primitive Trail has been closed for lack of use and lack of park funding to maintain it. The PMIS project for the Nature Trail Bridges is formulated to be replaced in 2015. The project to repair the trail surface has not yet been formulated.
Waste Water Systems	2 / 2	0.000 / 0.000		Waste water systems are routinely maintained by the maintenance staff and are in good condition. The two systems are septic tanks and drain fields. One serves the Maintenance Facility and the second serves the three housing units, Visitor Center/Admin offices and the comfort station.
Water Systems	5 / 5	0.000 / 0.000		The park water system provides water to the three housing units, comfort station, visitor center and maintenance facility and are in good working order.

Unpaved Roads	6 / 6	0.144 / 0.125		The unpaved roads in the park are in fair condition and serve as fire roads in the park. They are not open for public use and have an active preventive maintenance program. Funding to do surface repair has been awarded this year (FY 2014) and has been formulated to continue in FY 2019.
Paved Roads, Parking Areas, Bridges, Tunnels	26 / 26	0.086 / 0.188		The PMIS project Seal Coating Quarters Road has been formulated for FY 2019. Other PMIS projects to maintain parking lots or road projects fall under the Capital Investment Strategy Score cut off. All other road projects that fall under the Federal Highway Administration Transportation (FLTP Category) and those PMIS projects have yet to be formulated. Overall at the present time the paved roadways in the park used by the visitors are in good condition.
All Others	26 / 28	0.009 / 0.005		This category includes park grounds, backcountry, interpretive media, communication systems, computer system, park boundary and fuel system. The PMIS project to Rehabilitate Visitor Center Museum has yet to be formulated. The PMIS project to Develop and Implement Museum Collection Storage Plan has been funded in FY 2014.

Resource Brief: Increased Sustainability

This year (FY 2014) the park has received funding to convert the Visitor Center and attached Comfort Station to LED lighting. The annual energy consumption of the current lighting system is 23.665 kilowatts per year. With the new LED system, the consumption rate would drop to 17.09 kilowatts per year. This factors into an annual savings of roughly $600 per year on the park's electric bill, for a total cost savings of about $1,200 per year at 2013 prices. The project will pay for itself in the first 5 years.

In FY 2009 the roofs of the Visitor Center /Administration Building and Comfort Station was replaced. The roof material was originally wood cedar shingles with a ten-year lifespan. The replacement roof was a recycled plastic shingle that looks like a wood shingle but has a fifty-year lifespan.

In FY 2012 the park replaced two hazmat storage sheds that were constructed in 1985. The new hazmat storage sheds now meet all current NFPA, OSHA and EPA codes and regulations. Also in FY 2012, the park was able to remove two 550 gallon single steel-walled fuel tanks and a small stock pile of hazardous waste chemicals in the amount of about 20 gallons, and change the process of what chemicals are used in the park.

Resource Brief: Green Parks Plan

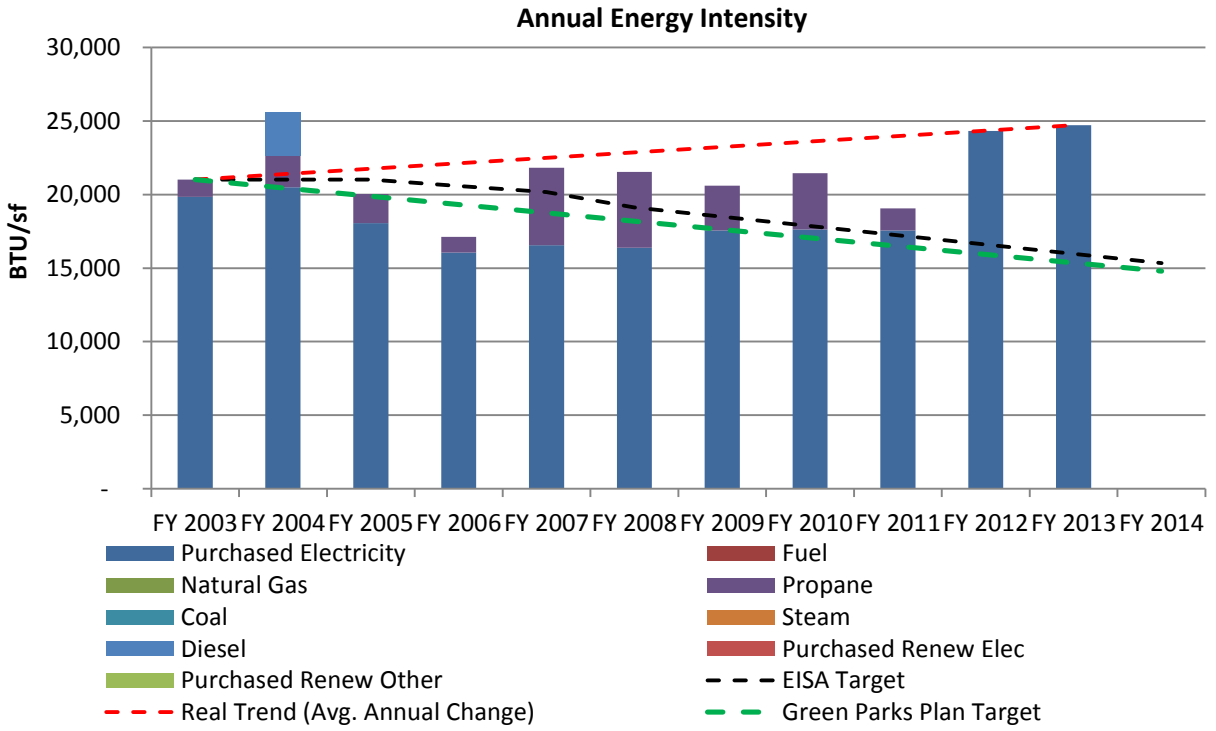
The NPS manages the largest number of constructed assets of any civilian agency in the Federal Government. It operates more than 67,000 structures that account for more than 50 million square feet of constructed space such as visitor centers and historic structures. The Green Parks Plan (GPP) defines a collective vision and a long-term strategic plan for sustainable management of NPS operations. A critical component of the implementation of the GPP will be informing and engaging parks staff, visitors, and community partners about climate change and sustainability to broaden opportunities to foster change.

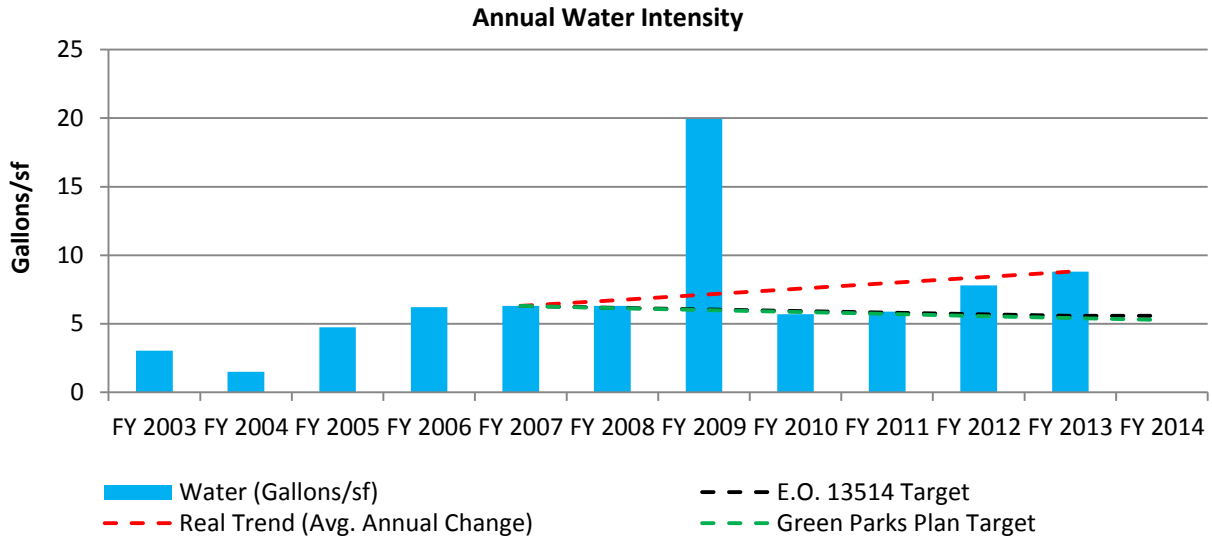
The Vision defined in the GPP plan is, "The NPS will preserve park resources unimpaired for the enjoyment of current and future generations by reducing its environmental impact through sustainable operations, design, decisions, and management at every level of the organization." The plan is based on nine strategic goals that focus on the impact of facilities on the environment and human welfare. Two of those goals are closely aligned with Park Infrastructure as defined in this State of the Park report. Those are:

- Be Energy Smart: The NPS will improve facility energy performance and increase reliance on renewable energy; and
- Be Water Wise: The NPS will improve facility water use efficiency.

For Energy, one of the performance objectives is to reduce Servicewide building energy intensity by 35 percent by 2016 from the 2003 baseline, where energy intensity is energy consumption per square foot of building space. For Water, one of the performance objectives is to reduce potable water use intensity by 30 percent by 2020 from the 2007 baseline.

Historical data for energy and water consumption reported by HOBE and available in the Energy Data Reporting Tool (EDRT) is shown below.





Highlights for HOBE include:

- Energy consumption has remained consistent across all years.
- Park energy consumption is generally slightly higher than the NPS Green Parks Plan target.
- Water consumption in FY 2009 increased due to undetected water line breaks.
- FY 2014 the park received funds to convert the Visitor Center and Comfort Station to LED lighting.

Chapter 3. Summary of Key Stewardship Activities and Accomplishments

Activities and Accomplishments

The list below provides examples of stewardship activities and accomplishments by park staff and partners to maintain or improve the condition of priority park resources and values for this and future generations:

Natural Resources

- The park is participating in an ongoing longleaf pine restoration project working with Dr. Sharon Hermann at Auburn University.
- The park's draft Integrated Pest Management Plan is complete and under review at the Southeast Regional office.
- Completion of basic natural resource inventories and initiation of long-term monitoring of a subset of the park's natural resources has been accomplished by the Southeast Coast Inventory and Monitoring Network (SECN).
- A draft Natural Resource Condition Assessment to evaluate and summarize existing natural resource data for the park was completed by the SECN in FY 2014.
- A study conducted by Gabriel Rivera in 2011 documented the evolution of morphological divergence in semi-aquatic freshwater turtles inhabiting slow and fast-flowing aquatic habitats.
- The park, in partnership with the Congaree NP Exotic Plant Management Team has been conduction Invasive exotic plant eradication since FY 2009.

Cultural Resources

- Through the Southeast Regional Office Cultural Resources Division (SERO CRD) the park has completed of Cultural Landscape Report and certification of Cultural Resource Inventory.
- The Scope of Collection Statement for Museum Collection has been completed in FY 2012.
- Southeast Archeological Center and partners from Lehigh University and Auburn University have completed a remote sensing survey of the core battlefield area. The survey includes confirmatory information regarding the location of the Red Stick defensive works (the barricade).
- Museum collections are 93.7% catalogued. Onsite museum collections have been 100% inventoried and photographed.
- Historic Resource Study and accompanying National Register of Historic Places nomination update have been funded for FY 2014. This will be the first update since the 1976 original nomination was signed by the Keeper of the Register. The update will include newly discovered archeological resources, cultural resources, and a Mission 66 evaluation.
- Park's first ever Ethnographic Overview and Assessment was formulated for FY 2016.
- Foundation Document workshop has been completed and document is in Regional review.
- Early tribal involvement in planning of the recent Bicentennial commemoration created the opportunity to enrich the relationship with the Muscogee (Creek) Nation of Oklahoma, the largest of the park's twelve Federally-recognized affiliated tribes. This cooperation between the park and tribal partners has built stronger ties to the park and its resources.

Visitor Experience

- The park commemorated the Bicentennial of the battle through 5 special events in March 2014.
- The Friends of Horseshoe Bend National Military Park was created in 2009 as the park's primary fundraising partner.
- The park's relationship with its 12 affiliated Federally recognized tribes which has been cultivated over the past few years has resulted in a positive input into park programs
- The creation of the Life Jacket Awareness/Loaner program beginning in 2011 has increased recreational safety along the river.
- 8 new wayside exhibits have been developed and put in place along the tour road.
- The Junior Ranger program has expanded to include event specific activities and the regular program now meets curriculum based education standards in the state of Alabama.
- The park expanded its outreach into social media by creating its Facebook page in 2014.
- The park has three available AEDs and improved first aid response kits that the staff is certified to use in case of emergencies.
- The park has multiple staff certified through the NPS Historic Weapons Safety training course to maintain and conduct black powder programs for the park.
- The park has participated in the Teacher–Ranger–Teacher program over the past five years which has resulted in a positive relationship with the local k–12 school.
- The park's orientation film was produced in 2004 and is also used as an educational tool in schools and for military training.
- The Eastern National bookstore expanded in 2014 prior to the bicentennial events.

Park Infrastructure

- The park resurfaced visitor-used park roads, pull offs and parking lots in FY 2006.
- In FY 2009, the park replaced the roof on the Visitor Center /Administration and Comfort Station buildings.
- The park completed cyclic painting of the Visitor Center / Administration Building in FY 2009.
- The park has maintained the park boundary through cyclic maintenance in FY 2006.
- The park replaced the lock and key system in FY 2006.
- The park has stabilized the River Road bridges in FY 2009.
- The park removed public safety hazards in FY 2009.
- The park cleaned HVAC ductwork and diffusers in the Visitor Center /Administration building in FY 2010.
- In FY 2010, the park completed Cyclic Repointing of the brick wall around Visitor Center.
- The park replaced HAZMAT storage sheds in FY 2012.
- Also in FY 2012, the park disposed of singled walled fuel storage tanks.
- The park completed a Boundary Clearing Youth Development Program in partnership with the Student Conservation Association in FY 2013.
- The park has recently completed the replacement of light fixtures with more energy-efficient LED fixtures.
- The park is currently converting Visitor Center to further meet ADA standards.
- The park is in the process of repairing the park fire roads.

Chapter 4. Key Issues and Challenges for Consideration in Management Planning

Tribal Relationships

The park is the site of the Battle of Horseshoe Bend, which resulted in the largest loss of American Indian life in a battle with the United States military to date. A vibrant tribal relationship is imperative to present a balanced interpretation of a controversial battle, as well as maintaining and improving the park's stewardship responsibilities for both cultural and natural resources. While the park has been successful in the past in consultations, many of the affiliated tribes do not respond to requests for consultation on various projects.

With the recent commemoration of the Bicentennial of the Battle of Horseshoe Bend, the park has taken the opportunity to foster a stronger relationship with the largest of the park's 12 affiliated Federally-recognized tribes—the Muscogee (Creek) Nation (MCN) of Oklahoma. While planning for the Bicentennial, the park issued invitations to participate to all tribes. The MCN responded with great enthusiasm and participated in the planning process with park staff. Traditionally, pre-removal history has not been taught or acknowledged to any great extent within the tribe. Many tribal members have never visited the ancestral homelands and associated properties before. Contacts before the Bicentennial planning process included participation as a stop on a bike ride by Muscogee (Creek) Nation Cultural Center and Tourism Department personnel. The purpose of this ride, entitled *Ocmulgee to Okmulgee* (Ocmulgee National Monument in Georgia to Okmulgee, OK) was to promote healthy heritage tourism among tribal members with traditionally associated properties in Georgia and Alabama. This led to the relationship in the Bicentennial planning process. The Bicentennial commemoration was a great success. Approximately 300 tribal government members, traditional community elders, and citizens traveled to participate in the commemorative activities. According to the tribal government, this was the largest organized movement of the Muscogee (Creek) Nation in this area since removal in the 1830s.

The challenge associated with this success is maintaining and fostering this relationship with the Muscogee (Creek) Nation, as well as expanding it to a more active relationship with the other eleven tribes. The Poach Band of Creek Indians, located in Atmore, AL, also participated in the Bicentennial activities, but on a smaller scale. Other tribal groups have participated in Servicewide initiatives associated with HOBE, such as consultation on the National War of 1812 Bicentennial Commemoration effort for both web and printed content. .

The success of the Bicentennial commemoration in building relevance for the site has led to increased communication with the Muscogee (Creek) Nation in partnering for various educational endeavors, including the exploration of distance learning between tribal schools in Oklahoma and local Alabama schools, as well as the possibility of a tribal Teacher-Ranger-Teacher and other interns.

The park has made great strides in fostering these ties with its affiliated tribes, but much remains to be done. Horseshoe Bend NMP preserves a site that is significant to not only tribal partners, but to the American people as we reach for understanding of a complicated and controversial past. The living experience of the affiliated tribe is an important avenue for relevance and education. Horseshoe Bend is the perfect resource for this understanding to take place. Maintaining the connection may be difficult to distance from many of the affiliated tribes (Oklahoma, Louisiana, Texas, North Carolina and Florida), but is key to relevance, education, and

stewardship. Continued cooperation between the park and tribal partners can build opportunities for advancement of these tenets and build ties to the park and its resources.

Development
While Tallapoosa County population statistics have remained stagnant over the past several years, population statistics and associated development in neighboring Lee County have not. Lee County contains the Auburn-Opelika metropolitan area, which is the 11th fastest growing metropolitan area in the United States. Increase in the Lee County population and its subsequent development will make selling of rural farmland for development more economically advantageous. A rapid increase in urbanization may bring with it increased highway traffic, as well as increased air, water, land, light, and noise pollution.

Within the past several years, HOBE has seen a slight increase in development of infrastructure associated with urbanization. Two cell towers within a five mile radius have been constructed, with one constructed approximately one mile south of the park entrance. The original plan for this cell tower was to be placed just outside the park boundary. The cell tower construction has so far not affected the significant viewsheds of the park, but increased development could bring more cell towers.

In addition to cell towers, a Notice of Intent to produce an Environmental Assessment under the National Environmental Policy Act by the Federal Environmental Regulatory Commission on behalf of a proposed multi-state natural gas pipeline is of concern. The pipeline's proposed route is located approximately one mile south of the park boundary on a current Alabama Power right-of-way. A compression station, with its increased noise pollution is scheduled to be located in Tallapoosa County at a currently unknown location.

The park is also surrounded by logging interests. Over the last year, several of these logging interests have harvested large portions of their existing tracts, especially on the southern approach to the park along State Road 49.

Relevance and Education
Over the past several years, visitation to HOBE has decreased. While Visitor Satisfaction and Visitor Understanding percentages have consistently exceeded set targets, decreased visitation, coupled with decreased budgets and staffing, may have a serious impact on fostering connections with the meanings and significance of the resource and its associated stories. In addition, school groups have for the most part reduced field trips to the park for onsite interpretive programs. In contrast, military groups from Fort Rucker, Fort McClellan and Fort Benning have increased their visits to the park for training and development. Staffing challenges sometimes require creative scheduling to cover the Visitor Center desk and present educational programs for the military or school groups that do come.

However, increased visibility due to the success of the park's Bicentennial commemoration has increased requests and interest in offsite programs. In addition, a local newspaper editorial has issued a call for the Alexander City and Tallapoosa County School Systems to increase the number of field trips to the "most historic place in Tallapoosa County."

This increased visibility and awareness of the park and it significant story provides an opportunity for the park to engage new audiences. Creativity among the park interpretive staff, use of technology, creative strategic sustainability, and partnerships with interested groups (Tribal entities, Friends Groups, State Parks, etc.) will capitalize on this window of opportunity.

Stewardship
The park has been diligently working on inventory of natural resources in collaboration with the Southeast Coastal Network (SECN) Inventory and Monitoring program. The park has gained a great deal of baseline documentation of various species, climate, and other aspects of the vibrant ecosystem associated with Horseshoe Bend and the Tallapoosa River. An active prescribed fire program is contributing to the maintenance of a balanced ecosystem, as well as the terrain associated with the battle.

However, a challenge exists in the lack of baseline documentation for the park's cultural resources. The park, through the hard work of the Southeast Archeological Center (SEAC) and a number of archeologists throughout the history of the park, has accomplished a great deal in identifying archeological sites. However, much work remains, as only four percent of the park has been surveyed to archeological standards for identification of historic archeological properties as per Section 110 of the National Historic Preservation Act. The remains of the Miller's Bridge piers are deteriorating rapidly. Documentation and treatment strategies to determine management strategies for the structures, as well as maintenance of the three other historic structures on the List of Classified Structures are needed. A Battlefield Management Plan is needed to identify sustainable methods for maintaining the cultural landscape and viewshed of the core Battlefield area.

The only foundational planning document for the park is the original 1960 Master Plan. A General Management Plan will most probably not be funded anytime in the near future. However, a Foundation Document workshop has been completed and is currently in regional review. This document will provide the basis for management decisions for the future.

In addition to the Foundation Document, strides have been made to complete Cultural Resources baseline documentation in the last three years. A Cultural Landscape Report and Inventory was completed and certified in 2013. A Scope of Collections Statement was also completed that year. A project for an Ethnographic Overview and Assessment has been formulated for FY 2016.

These funding requests, as well as funding provided through Southeast Regional Cultural Resources program areas, represent an investment in stewardship for the benefit of the park managers and staff of the future in their decision-making process. The baseline knowledge is an integral part of preserving and protecting these important resources.

Operations and Infrastructure
A major issue for park operations is the replacement of the park's aging maintenance facility. The facility is a patchwork of structures that do not meet any construction codes or standards. The cost of repairing the deficiencies individually is more expensive than replacing the structure. A project has been entered to repair by replacement, but so far has not been successful in gaining funding. Park staff is working with Southeast Regional Facility Management staff to get the project funded to provide a safer and healthier work environment. The park staff will also work with SER Regional Risk Management staff to document the serious health and safety issues.

In addition, the curatorial storage room at the park is deficient in several areas, mainly in the fact that the sole door to the room opens to the outside. This issue could have serious long-term impact on the museum collection. A Collection Storage Plan and its implementation has been funded through Cyclic Maintenance to attempt to make the most efficient use of the oddly-shaped room, but environmental issues due to the door and lack of climate control will still present major hurdles for stewardship.

The park staff has worked diligently to identify operational efficiencies to further stewardship of our financial resources. In this budget environment, creativity and strategic sustainability in staffing and fiscal areas will be paramount.

References

See the State of the Park Report for the Park website for a more complete list of references to documents and data sets upon which the assessments in this State of the Park report are based. References for several of the key documents cited in this report are as follows:

Bradley, A., D. S. Wilcover, and M. Oppenheimer. 2010. Climate change increases risk of plant invasion in the Eastern United States. Biological Invasions 12:1855-1872 DOI 10.1007/s10530-009-9597-y

Burkholder, J. M., and M. B. Rothenberger. 2010. Assessment of water resources and watershed conditions in Horseshoe Bend National Military Park, Alabama. Natural Resource Report NPS/SECN/NRR—2010/268.

Byrne, M. W., E. P. Davie, and J. W. Gibbons. 2008. *Batrachochytrium dendrobatidis* Occurrence in *Eurycea cirrigera*. Southeastern Naturalist 7(3):551–555.

Byrne, M. W., J. C. DeVivo, J. R. Asper, and B. A. Blankley. 2011a. Landbird monitoring at Horseshoe Bend National Military Park, 2009. Natural Resource Data Series NPS/SECN/NRDS—2011/298. National Park Service. Fort Collins, Colorado.

Byrne, M. W., B. D. Smrekar, M. N. Moore, and C. S. Harris. 2011b. Summary of vocal anuran monitoring at Horseshoe Bend National Military Park, 2009. Natural Resource Data Series NPS/SECN/NRDS—2011/156. National Park Service. Fort Collins, Colorado.

Byrne M. W. and M. N. Moore. 2011. Incidence of Chytrid Fungus, *Batrachochytrium dendrobatidis*, in Southeast Coast Network Parks. Natural Resource Technical Report. NPS/SECN/NRTR—2011/477. National Park Service, Natural Resource Stewardship and Science. Fort Collins, Colorado.

Byrne, M. W., J. C. DeVivo, B. D. Smrekar, L. M. Elston, C. J. Wright, and E. Thompson. 2013. Protocol for monitoring vocal anuran communities in Southeast Coast Network parks. Natural Resource Report NPS/SECN/NRR—2013/720. National Park Service. Fort Collins, Colorado.

Duriscoe, D. M. 2013. Measuring Anthropogenic Sky Glow Using a Natural Sky Brightness Model. Publications of the Astronomical Society of the Pacific. 125(933):1370–1382.

Duriscoe, D. M., C. B. Luginbuhl, C. A. Moore. 2007. Measuring Night-sky Brightness with a Wide-field CCD Camera. Publications of the Astronomical Society of the Pacific. 119:192–213.

Federal Aviation Administration. 2010. FAA Aerospace Forecast Fiscal Years 2010–2030. U.S. Department of Transportation Federal Aviation Policy and Plans, Washington D.C.

Federal Highway Administration. (2013). Traffic Volume Trends: May 2013. Traffic volume trends. Federal Highway Administration.

Fisichelli, N. 2014. Climate Change Trends for the State of the Park Report, Horseshoe Bend National Military Park, Alabama. NPS Climate Change Response Program. Fort Collins, Colorado.

Fisichelli, N. A., S. R. Abella, M. P. Peters, and F. J. Krist Jr. 2014. Climate, trees, pests, and weeds: Change, uncertainty, and biotic stressors in eastern U.S. national park forests. Forest Ecology and Management 327:31-39.

Frank, S. D. 2014. Bad neighbors: urban habitats increase cankerworm damage to non-host understory plants. Urban Ecosystems.

Gan, J. 2004. Risk and damage of southern pine beetle outbreaks under global climate change. Forest Ecology and Management. Volume 191, Issues 1-3, 5 April 2004, Pages 61-71.

Hermann, S. M. and J. S. Kush. 2006. Assessment of restoration potential of residual stands of mountain (piedmont) longleaf pine at Horseshoe Bend National Military Park. Pages 39–42 in Proceedings of the Second Montane Longleaf Pine Conference, Berry College, Georgia. Longleaf Alliance Report No. 9.

Ingram, K., K. Dow, L. Carter, J, Anderson, eds. 2013. Climate of the Southeast United States: Variability, Change, Impacts, and Vulnerability. Island Press. Washington D.C.

Kohut R. J. 2004. Ozone risk assessment for National Capital Region Network. National Park Service. Fort Collins, Colorado.

Kohut, R. J. 2007. Ozone risk assessment for Vital Signs Monitoring Networks, Appalachian National Scenic Trail, and Natchez Trace National Scenic Trail. NPS/NRPC/ARD/NRTR—2007/001. National Park Service. Fort Collins, Colorado.

Kunkel, K. E., L. E. Stevens, S. E. Stevens, L. Sun, E. Janssen, D. Wuebbles, C. Konrad, C. Fuhrman, B. D. Keim, M. C. Kruk, A. Billot, H. Needham, M. Shafer, and J. G. Dobson. 2013. Regional Climate Trends and Scenarios for the U.S. National Climate Assessment: Part 2. Climate of the Southeast U.S. National Oceanic and Atmospheric Administration Technical Report NESDIS 142–2, Washington, D.C.

Meineke, E. K., R. R. Dunn, J. Sexton, and S. D. Frank. 2013. Urban warming drives insect pest abundance on street trees. PLoS One DOI: 10.1371/journal.pone.0059687.

Moore, C. M., J. M. White, F. Turina. Recommended Indicators of Night Sky Quality for NPS State of the Parks Reports. National Park Service. Fort Collins, Colorado.

National Park Service, Air Resources Division. 2013. Air quality in national parks: trends (2000–2009) and conditions (2005–2009). Natural Resource Report NPS/NRSS/ARD/NRR—2013/683. National Park Service. Denver, Colorado.

Rasmussen, T. C., J. F. Dowd, R. J. McKinnon, B. M. Price, and R. D. Sherrell. 2009. Southeast Coast Network groundwater monitoring: Protocol development and analysis of existing data. Natural Resource Report NPS/SECN/NRR—2009/126. National Park Service. Fort Collins, Colorado.

Smrekar, B. D., M. W. Byrne, M. N. Moore, and A. T. Pressnell. 2013a. Amphibian community monitoring at Horseshoe Bend National Military Park, 2011. Natural Resource Data Series NPS/SECN/NRDS—2013/528. National Park Service. Fort Collins, Colorado.

Smrekar, B. D., M. W. Byrne, L. Kleinschmidt, and N. P. Schwartz. 2013b. Amphibian community monitoring at Horseshoe Bend National Military Park, 2012. Natural Resource Data Series NPS/SECN/NRDS—2013/550. National Park Service. Fort Collins, Colorado.

Sullivan, T. J., G. T. McPherson, T. C. McDonnell, S. D. Mackey, and D. Moore. 2011a. Evaluation of the sensitivity of inventory and monitoring national parks to acidification effects from atmospheric sulfur and nitrogen deposition: main report. Natural Resource Report NPS/NRPC/ARD/NRR—2011/349. National Park Service. Denver, Colorado.

Sullivan, T. J., G. T. McPherson, T. C. McDonnell, S. D. Mackey, and D. Moore. 2011b. Evaluation of the sensitivity of inventory and monitoring national parks to acidification effects from atmospheric sulfur and nitrogen deposition: Southeast Coast Network (SECN). Natural Resource Report NPS/NRPC/ARD/NRR—2011/375. National Park Service. Denver, Colorado.

Sullivan, T. J., T. C. McDonnell, G. T. McPherson, S. D. Mackey, and D. Moore. 2011c. Evaluation of the sensitivity of inventory and monitoring national parks to nutrient enrichment effects from atmospheric nitrogen deposition: main report. Natural Resource Report NPS/NRPC/ARD/NRR—2011/313. National Park Service. Denver, Colorado.

Sullivan, T. J., T. C. McDonnell, G. T. McPherson, S. D. Mackey, and D. Moore. 2011d. Evaluation of the sensitivity of inventory and monitoring national parks to nutrient enrichment effects from atmospheric nitrogen deposition: Southeast Coast Network (SECN) Natural Resource Report NPS/NRPC/ARD/NRR—2011/329. National Park Service. Denver, Colorado.

Tuberville, T. D., J. D. Wilson, M. E. Dorcas, and J. W. Gibbons. 2005. Herpetofaunal species richness of Southeastern National Parks. Southeastern Naturalist 4: 537–569.

U.S. Census Bureau. Population Estimates. (2013). City and Town Intercensal Estimates (2000–2010). U.S. Census Bureau. Retrieved from http://www.census.gov/popest/data/intercensal/cities/cities2010.html

Wade, D. D., F. L. Brock, P. H. Brose, J. B. Grace, G. A. Hoch, and W. A. Papperson III. 2000. Fire in eastern ecosystems. In: Brown, J. K., Smith, J. K., eds. Wildland fire in ecosystems: effects of fire on flora. GTR RMRS–42. Ogden, UT. USDA Forest Service, Rocky Mountain Research Station: 53–96.

Wigley, T. M. 2005. The climate change commitment. Science 307:1766–1769.

Wright, C. J. 2012. Groundwater conditions in Southeast Coast Network Parks, 2011. Natural Resource Data Series NPS/SECN/NRDS—2012/326. National Park Service. Fort Collins, Colorado.

See Also:

Collection of Natural Resource-Related References

Collection of Cultural Resource-Related References

Collection of Visitor Experience-Related References

Glossary

See the State of the Parks home page for a link to a complete glossary of terms used in State of the Park reports. Definitions of key terms used in this report are as follows:

Americans with Disabilities Act (ADA)	Law enacted by the federal government that includes provisions to remove barriers that limit a disabled person's ability to engage in normal daily activity in the physical, public environment.
Archeological Sites Management Information System (ASMIS)	The National Park Service's standardized database for the basic registration and management of park prehistoric and historical archeological resources. ASMIS site records contain data on condition, threats and disturbances, site location, date of site discovery and documentation, description, proposed treatments, and management actions for known park archeological sites. It serves as a tool to support improved archeological resources preservation, protection, planning, and decision-making by parks, centers, regional offices, and the national program offices.
Baseline Documentation	Baseline documentation records the physical condition of a structure, object, or landscape at a specific point in time. A baseline provides a starting point against which future changes can be measured.
Carbon Footprint	Carbon footprint is generally defined as the total set of greenhouse gas emissions caused by an organization, event, product or person.
Climate Friendly Park	The NPS Climate Friendly Park designation requires meeting three milestones: completing an application; completing a comprehensive greenhouse gas (GHG) inventory; and completing a Climate Action Plan, which is the actions, policies, programs, and measures a park will put into place to reduce its GHG emissions.

Cultural Landscape Inventory (CLI)	A Cultural Landscapes Inventory describes historically significant landscapes within a park. The inventory identifies and documents each landscape's location, size, physical development, condition, characteristics, and features, as well as other information useful to park management.
Curation	National parks are the stewards of numerous types of objects, field notes, publications, maps, artifacts, photographs, and more. The assemblage of these materials comprises a museum collection. Curation is the process of managing, preserving, and safeguarding a collection according to professional museum and archival practices.
Exotic Plant Management Team (EPMT)	One of the ways the NPS is combating invasive plants is through the Exotic Plant Management Program. The program supports 16 Exotic Plant Management Teams working in over 225 park units. EPMTs are led by individuals with specialized knowledge and experience in invasive plant management and control. Each field-based team operates over a wide geographic area and serves multiple parks.
Facility Condition Index (FCI)	FCI is the cost of repairing an asset (e.g., a building, road, bridge, or trail) divided by the cost of replacing it. The lower the FCI number, the better the condition of the resource.
Foundation Document	A park Foundation Document summarizes a park's purpose, significance, resources and values, primary interpretive themes, and special mandates. The document identifies a park's unique characteristics and what is most important about a park. The Foundation Document is fundamental to guiding park management and is an important component of a park's General Management Plan.
Fundamental and Other Important Resources and Values	Fundamental resources and values are the particular systems, processes, experiences, scenery, sounds, and other features that are key to achieving the park's purposes and maintaining its significance. Other important resources and values are those attributes that are determined to be particularly important to park management and planning, although they are not central to the park's purpose and significance. These priority resources are identified in the Park Foundation Document and/or General Management Plan. The short-cut name that will be used for this will be Priority Resources.
Historic Integrity	Historic Integrity is the assemblage of physical values of a site, building, structure or object and is a key element in assessing historical value and significance. The assessment of integrity is required to determine the eligibility of a property for listing in the National Register.
Indicator of Condition	A selected subset of components or elements of a Priority Resource that are particularly "information rich" and that represent or "indicate" the overall condition of the Priority Resource. There may be one or several Indicators of Condition for a particular Priority Resource.
Interpretation	Interpretation is the explanation of the major features and significance of a park to visitors. Interpretation can include field trips, presentations, exhibits, and publications, as well as informal conversations with park visitors. A key feature of successful interpretation is allowing a person to form his or her own personal connection with the meaning and significance inherent in a resource.
Invasive Species	Invasive species are non-indigenous (or non-native) plants or animals that can spread widely and cause harm to an area, habitat or bioregion. Invasive species can dominate a region or habitat, out-compete native or beneficial species, and threaten biological diversity.
List of Classified Structures (LCS)	LCS is an inventory system that records and tracks the condition of the approximately 27,000 historic structures listed in the National Register of Historic Places that are the responsibility of NPS.

Museum Collection	NPS is the steward of the largest network of museums in the United States. NPS museum collections document American, tribal, and ethnic histories; park cultural and natural resources; park histories; and other aspects of human experience. Collections are managed by professionally-trained NPS staff, who ensure long-term maintenance of collections in specialized facilities.
Native American Graves Protection and Repatriation Act (NAGPRA)	A federal law passed in 1990. NAGPRA provides a process for museums and federal agencies to return certain Native American cultural items (e.g., human remains, funerary objects, sacred objects, objects of cultural patrimony) to lineal descendants and culturally-affiliated Indian tribes and Native Hawaiian organizations.
Natural Resource Condition Assessment (NRCA)	A synthesis of existing scientific data and knowledge, from multiple sources, that helps answer the question: what are current conditions of important park natural resources? NRCAs provide a mix of new insights and useful scientific data about current park resource conditions and factors influencing those conditions. NRCAs have practical value to park managers and help them conduct formal planning and develop strategies on how to best protect or restore park resources.
Priority Resource or Value	This term refers to the Fundamental and Other Important Resources and Values of a park. These can include natural, cultural, and historic resources as well as opportunities for learning, discovery and enjoyment. Priority Resources or Values include features that have been identified in park Foundation Documents, as well as other park assets or values that have been developed or recognized over the course of park operations. Priority Resources or Values warrant primary consideration during park planning and management because they are critical to a park's purpose and significance.
Project Management Information System (PMIS)	A servicewide intranet application within the National Park Service to manage information about requests for project funding. It enables parks and NPS offices to submit project proposals to be reviewed, approved and prioritized at park units, regional directorates, and the Washington Office.
Resource Management	The term "resources" in NPS encompasses the many natural, cultural, historical, or sociological features and assets associated with parks. Resource management includes the knowledge, understanding, and long-term stewardship and preservation of these resources.
Southeast Coast Network (SECN)	One of 32 I&M networks established as part of the NPS Inventory and Monitoring Program. The Southeast Coast Network comprises 20 parks in Alabama, Florida, Georgia, North Carolina, and South Carolina.
Specific Measure of Condition	One or more specific measurements used to quantify or qualitatively evaluate the condition of an Indicator at a particular place and time. There may be one or more Specific Measures of Condition for each Indicator of Condition.
Visitor and Resource Protection (VRP)	VRP includes, among other responsibilities, protecting and preserving park natural and cultural resources, enforcing laws that protect people and the parks, fire management, search and rescue, managing large-scale incidents, and on-the-ground customer service.